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ABSTRACT

This document contains several short papers which cover various aspects of career education. The need for and elements of career development programs are discussed by R.M. Worthington in "Career Development for All," while G. Law, Jr., defines simulations, discusses their advantages, and presents examples in "Simulations and Career Education." "Answers to Five Basic Questions About Career Education" by P. Doherty is intended to provide a brief orientation for teachers and administrators, and "Computerized Career Information" by G. Law, Jr., provides information for educators considering the use of such systems. The facts behind the nationwide movement for schools to accept accountability for placement of all students in employment and/or continuing education is presented in "Why Career Education? The Facts" by L.A. Forsythe and E.G. York, while "Placement: The Ultimate Test of a School's Commitment to its Students" by W. Kaskow briefly explains a job placement program. The shape of a career exploration program for young teens is described in "7th, 8th and 9th Grade Career Exploration" by T. W. Gambino, and a bibliography of periodicals is provided by P.R. Walsh in "Periodicals Helpful to Career Education." "Apprenticeship Training and Career Education" by W. Wenzel discusses the relationship of apprenticeship training to career education. "Highlights of the Invitational Conference on Career Development" concerns a conference held on August 2, 1971, to acquaint New Jersey educators with progress made in pilot comprehensive career development programs in Camden, New Brunswick, and Rahway. Four speeches and a summary of findings and recommendations are included. (SB)

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SIMULATIONS AND CAREER EDUCATION

Simulations and Career Education: A Discussion of Instructional Simulation Games for Programs of Career Education

SPECIAL PAPER

FEBRUARY 1972

by
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Division of Vocational Education

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The intention of this paper is to discuss instructional simulation games as they relate to the program needs of career education with particular reference to the New Jersey Occupational Research and Development Resource Center's collection of instructional games and simulations, perhaps the largest such collection in the state.

1. WHAT IS A SIMULATION?

One striking aspect of the literature of simulations is a preoccupation with definitional problems. Most writers begin discussions of simulation with at least a mention of definitional controversies, and often with their own contribution to the growing number of definitions.

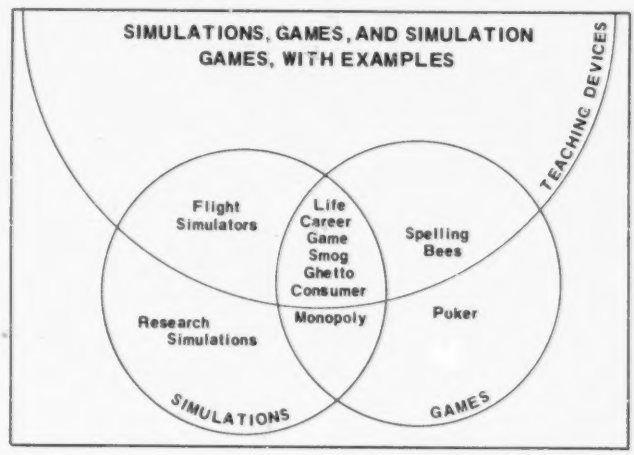
A typical definition of simulation is Paul A. Twelker's:

> Simulation may be thought of in general terms as (1) a technique of modeling (physically, iconically, verbally, or mathematically) some aspects of a real or proposed system, process or environment, or (2) a model (physical, iconic, verbal, or mathematical) of some aspects of a real or proposed system, process, or environment. (Twelker, 1969)

Elsewhere Twelker (in Zuckerman and Horn, 1970) defines games as "competitive encounters between individuals that involve some degree of skill and/or luck."

Zuckerman and Horn, editors of *The Guide To Simulation Games for Education and Training*, a very useful annotated listing, define a game as ". . . an activity undertaken by a player or players whose actions are constrained by a set of explicit rules particular to that game and by a pre-determined end-point," and a simulation game as a device sharing the properties of both simulation and game: ". . . their elements compose a more or less accurate representation or model of some external reality with which the players interact in much the same way they would interact with the actual reality." (Zuckerman and Horn, 1970)

The following diagram illustrates the usual categorization of simulation, game, and simulation game:



That these distinctions may not be of great importance, however, is shown by Raser, in the methodological study *Simulation and Society: An Exploration of Scientific Gaming*:

> I have not yet distinguished between 'games' and 'simulations'. Indeed, the distinction is not usually made by those working in the field; the terms are generally used interchangably. Still there seems to be a subtle difference even in the conventional terminology. The more explicit is the 'operating model' to which Brody refers, that is, the greater the extent to which all the seemingly salient variables are formally pre-programmed and the more it is believed that the model is a complete and accurate analogue to some 'referent' system, the more likely it is that the model will be called a simulation. On the other hand, the more informal and tentative the model and the more it relies on human participants as an intrinsic component in its operation, the more likely it will be called a game. (Raser, 1969)

So much for what Zuckerman and Horn call the "muddy controversy" surrounding definitions of simulation and game.

The concern of this paper shall be with instructional simulation games, such as Smog, Ghetto, Consumer, or the Life Career Game.

2. WHEN AND WHY DID SIMULATIONS DEVELOP?

The modern instructional simulation game is a descendent of the Prussian "Kriegsspiel," or war game. The war game was probably the first thorough-going attempt to model a very complex reality in a competitive context for training and, less successfully for planning.

Andrew Wilson, a critic of gaming for political planning, describes the spread of simulation technique:

> Since modern technology has destroyed the exclusively military character of war planning, and America's intercontinental missiles could to all intents be deployed, manned and operationally launched by the aerospace companies that make them it is not surprising to find many of the techniques of military analysis being used in other fields. This is the case with war games, which under various names are being widely employed for training and research in business and the social sciences. Indeed business and the social sciences have sometimes been ahead of the military in gaming. (Wilson, 1968)

The real beginning of the diffusion of simulation technique is found by Wilson to be the 1956 development of a training game for the American Management Association and the 1958 creation of the Harvard Business Review Game.

At almost the same time, simulations for the teaching of social sciences were evolving from the cold war politico-military descendants of the war game. In 1958 the Inter-Nation Simulation was developed at Northwestern University by Guetzkow and others, and used for both research and the instruction of undergraduates. (Carlson, 1969, P 53)

These two streams combined in the explosive growth of the use of teaching games in the sixties.

This is an historical explanation, describing the evolution of simulation gaming. Other explanations describe the combination of diverse older methods making up simulation technique. Twelker, for instance, names the ancestors of the simulation game as training simulators, games, and role-playing technique. (Twelker, in Zuckerman and Horn, 1970)

3. WHAT ARE THE ADVANTAGES OF SIMULATIONS?

Simulations and games may be used for either research or instruction. Certain simulation games, such as the famous Northwestern Inter-Nation Simulation, may be used for both.

In one experiment, for instance, an attempt was made to match participant psychological profiles with those of historical figures to simulate the outbreak of the First World War. (Hermann & Hermann, 1967)

While some games discussed here might also have a research function, the primary concern will be with simulation games used for instruction with younger students. This last qualification is important as is the use of the adjective "instructional", rather than the more common "educational".

Simulations and games are used throughout the area of education, and not only by elementary and secondary school students. The In-Basket exercise, recently expanded through the addition of feedback and further situational progression (Culbertson, Ohm, and Sweitzer, 1968) stands as a familiar example. Abt Associates' EDPLAN is described as "an education system planning game designed to demonstrate the major issues of education planning and to encourage awareness of alternate plans, costs and benefits." (Abt Associates, 1970) Facilities planning simulations are non-instructional research simulations used in the area of education. The provision for instructional relevance to elementary and secondary school students eliminates discussion of these, and other instructional simulations, such as war games and politico-military games, which are used as training devices by the armed forces and government officials.

The simulation game is usually seen as having two values in the classroom — instructional and motivational. Proponents of the value of simulation games generally argue that the technique is clearly superior in motivational function, and teaches just as well as other techniques.

Erwin Rausch, author of the Economic Decision Games, The Market, The Firm, Collective Bargaining, The Community, Scarcity and Allocation, Banking, The National Economy, and International Trade, describes the values of the instructional simulation games as follows:

> 1. The Competition of games helps students understand the usefulness of and future need for the principles they are learning. They are stimulated to make an extra effort to learn. 2. Game playing forces students to be active. They must make decisions. In a sense, they influence their environment, and this fact favorably affects their attitude toward learning. 3. Slow students participate actively in games, usually because they can see some results of participation, and they gain some confidence in their ability as they improve their scores. Such students often perform better in game situations than in traditional class activities. 4. Game playing helps make students seekers of knowledge instead of passive absorbers of it. The competitive atmosphere often stimulates them to study a subject in greater depth in order to excel in a game. 5. The process of learning through game playing removes the teacher from the traditional role of instructor and judge. He can act more as a guide and resource person and less as an authority figure, students interact more and learn from one another. (Rausch, 1968)

Writers such as Clark Abt, described by Carlson as a "true believer" (Carlson, 1969, pg. 167), find learning in games to take place on several levels, including those of fact-learning, process-learning, and strategic thinking. (Abt, 1967)

Raser also puts forth a similar argument:

> Students therefore must learn to think in terms of 'system,' to grasp the inter-connections among elements, to understand information flow and developmental constructs; in short, to see the world in terms of dynamic process, not as a series of static "events" – To a remarkable degree, gaming focuses on process and system behavior, rather than on the accumulation of detailed bits of knowledge. (Raser, 1969)

However, he links it to a theory of education stressing the value of this particular type of learning, a type of learning remarkably consistent with that urged in recent formulations of career education.

An interesting point here is on the emphasis often placed on the beneficial effects on competition. Despite the usual definition of "game" as embodying competition, not all instructional games rely upon competitive action. Some games call for a mixture of cooperative and competitive action, and others are based upon player cooperation in situations of incomplete information and communications control.

4. CAREER EDUCATION CAN USE SIMULATION TECHNIQUES

Simulation technique has great flexibility in modeling different referent systems because it recreates the ruling processes operational in the particular reality being simulated.

For instance, systems with processes with normally set outcomes, under certain given conditions, might be simulated in a "deterministic" game, while systems with statistically predictable outcomes might best be simulated in "probabalistic" games, with results determined by probability tables and dice, random number lists, or Monte Carlo devices. Both deterministic and probabalistic games may be "rigid" – that is with set routines established for the determination of results. Some systems, on the other hand, could be simulated in "free" games, with human umpires passing on the feasibility of actions. All of these methods may be mixed, of course. A largely deterministic game, for example, may be spiced with random catastrophes or opportunities.

The designer may also manipulate game dynamics through controls or filtering of in-game information, assignment of role characteristics to participants, and establishment of conditions for game termination and victory assignment. The imaginative designer has a wide range of methods available for enrichment. Moreover, the same process may be simulated in different ways, among which the designer may choose. For example, in a "free" game, bargaining positions may be established through role assignment and referee judgment on the likelihood of feasibility of offers. In a more rigid game, players might freely operate within limits explicity set out in the rules.

Computerization may be involved in several ways. Computers sometimes are essential to, and often useful for, calculations of the effects of participant actions. In some games, rules are embodied in computer programs, so that individuals may play with or against the computer in a manner similar to that of computer-assisted insruction. Simulations used in research are computerized so as to make replication possible for experimental purposes.

Instructional games may be useful in many areas. As has been noted, and as is evident in the topical listing of the Resource Center collection, simulation development has been especially heavy in Business Education, Social Studies, and Leadership Training. A great potential exists for development within career education areas.

5. SIMULATION GAMES FOR CAREER EDUCATION

A complete topical listing of the simulation game collection of the New Jersey Occupational Research and Development Resource Center at Edison is presented below. The reader is welcome to borrow and try out any of them. For further comment or purchasing and evaluation information, refer to Zuckerman and Horn's *The Guide To Simulation Games For Education And Training*, in which almost all of these games are described.

The sixty-one simulations listed are presented under these twelve topics: administration; business education; career development; consumer education; distributive education; driver education; environment education; evaluation; guidance; health occupations education; social studies; and, urban education.

The reader will want to know that many of the administration games were developed for business management use but are general enough to be of use to educational administrators. Also, some games of possible value to consumer education units might be categorized as business games.

THE COLLECTION OF SIMULATION GAMES
N.J. OCCUPATIONAL R. & D.
RESOURCE CENTER, EDISON

ADMINISTRATION

- THE WRITING GAME (Teaches effective memorandum construction)
- SELECTING EFFECTIVE PEOPLE (Teaches personnel selection criteria and methods)
- MANAGEMENT BY OBJECTIVES (Teaches effective objectives construction)
- THE LISTENING GAME (Teaches effective listening techniques)
- THE JOHN AND GEORGE INTERVIEW (Teaches effective listening techniques)
- THE CORK BALLS GAME (Teaches principles of work simplification)
- CONSTRUCTIVE DISCIPLINE (Teaches techniques for attainment of good discipline and high morale)
- THE BRIDGE GAME (Teaches planning and division of labor)
- MANAGEMENT FOR SUPERVISORS (Teaches assignment of priorities and objectives)
- EDPLAN (An educational planning game)

BUSINESS EDUCATION

- TRANSACTION: THE AUTHENTIC STOCK MARKET GAME (Teaches one to play the market)
- STOCK MARKET GAME (Teaches one to play the market)
- THE STICKS 'N STONES GAME (A leadership training game)

- SCARCITY AND ALLOCATION (An economic theory game)
- REORGANIZATION (Teaches relation of organizational structure to purpose)
- QUALITY CONTROL MANAGEMENT (Teaches decision-making in quality control management)
- PRODUCTION CONTROL-INVENTORY (Teaches problem-solving skills in inventory control)
- PLANNED MAINTENANCE (Teaches decision-making skills in maintenance)
- THE PERFORMANCE GAME (A production evaluation simulation)
- PANIC (A simulation of the 1929 stock market crash)
- THE NESTING BOXES GAME (A simulation of production planning)
- THE MARKET (A general economics game)
- THE NATIONAL ECONOMY (A general economics game)
- MANAGING THE WORKER (Simulates discipline and supervision problems)
- INTERNATIONAL TRADE (A general economics game)
- THE GAME OF RAILROADING (Simulates Chesapeake and Ohio, and Baltimore and Ohio Railroad operations)
- MANAGEMENT DECISION SIMULATION (A complex business operations game)
- THE LUMBER YARD GAME (A simulation of employee training problems)
- THE FIRM (A general business game)
- EXECUTIVE ACTION SIMULATION (A general business game)
- EQUIPMENT EVALUATION (Teaches selection and replacement of industrial and office equipment)
- DECISION MAKING (A business decisions game)
- CONTRACT NEGOTIATIONS (A labor relations game)
- COLLECTIVE BARGAINING (A labor relations game)
- BANKING (A general business game)

CAREER DEVELOPMENT
- LIFE CAREER (A career planning and decision game)

CONSUMER EDUCATION
- CONSUMER (Teaches budgeting and good buying habits)
- ECONOMIC SYSTEM (A general business game of possible use in consumer education)

DISTRIBUTIVE EDUCATION
- STORE (A shoe retailing game)
- PAY THE CASHIER (A change-making game)
- SALES PROMOTION (A sales-strategy game)
- SALES STRATEGY (A sales-strategy game)

DRIVER EDUCATION
- ROAD-A-BILITY (Simulates driving under legal regulations)

ENVIRONMENTAL EDUCATION
- SMOG (Air pollution control game)
- DIRTY WATER (Water pollution control game)

EVALUATION
- APPRAISAL BY OBJECTIVES (Teaches evaluation on the basis of set objectives)

GUIDANCE
- THE VALUE GAME (Illustrates lack of ethical consensus)
- INSIGHT (Self-evaluation game)
- IN-QUEST (An inquiry methods game)
- THE GAMES PEOPLE PLAY (A social interaction game)
- GENERATION GAP (A family conflict game)

HEALTH OCCUPATIONS EDUCATION
- THE EGG AND EVOLUTION (Cell biology through a sort of programmed instruction)

SOCIAL STUDIES
- STARPOWER (A class conflict game)
- THE ROAD GAME (A social competition game)
- PLANS (An interest group competition game)
- ELECTION (U.S. Presidential election game)
- DOWN WITH THE KING (A revolutionary action game)
- DEMOCRACY (A legislative process simulation)
- THE COMMUNITY (A local economic simulation)

URBAN EDUCATION
- SITTE (An urban planning simulation)
- GHETTO (Role-playing of various ghetto residents)

6. HOW TO DESIGN YOUR OWN SIMULATION FOR USE IN CAREER EDUCATION

Areas related to career education in which simulation games should be developed are:

- career development within various job clusters
- production or management problems particular to occupations under regular class study
- student course selection for career preparation
- student role in school policy

The educator may elect to design his own simulation game. This has the obvious advantage of allowing him to tailor the game to his particular needs, especially in terms of integration into the curriculum and relevancy to particular student populations.

Demak and Dworkin suggest in fact "— that only after playing or even better — designing games, does one get an appreciation of the power and potential inherent in the use of games and simulations." (Demak and Dworkin, 1969)

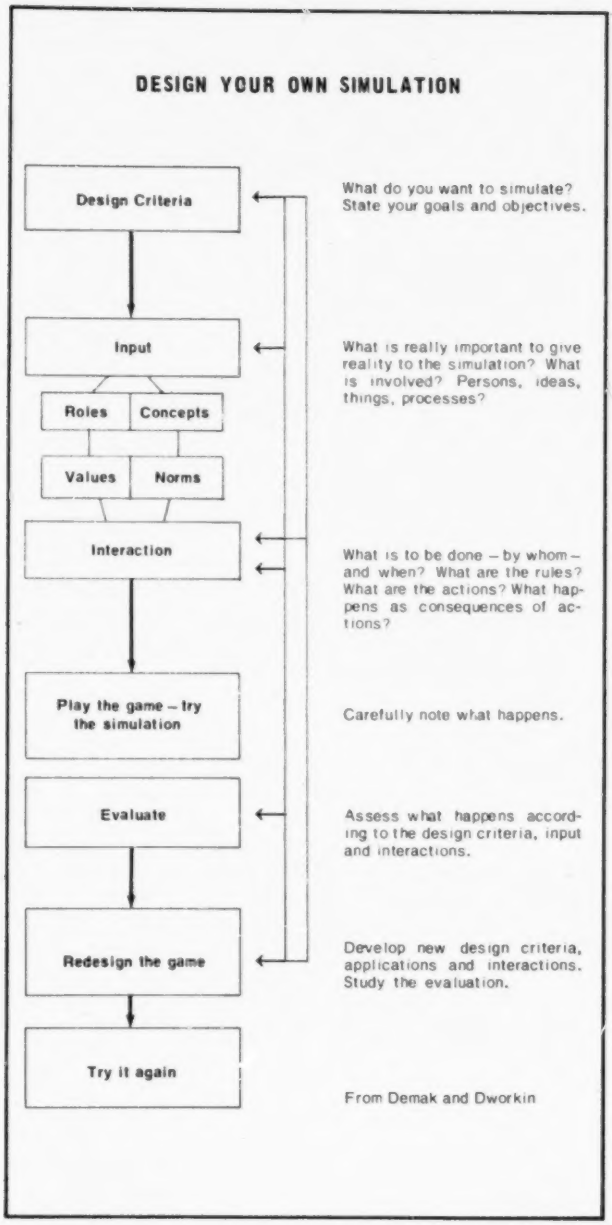
When either designing or selecting a game, certain questions should be kept in mind:

- Is the game of potential use to the students in terms of age or cultural characteristics?
- How might the game be related to the rest of the curriculum?
- How long would it take to prepare teacher and students for use?
- How much would the game cost to operate?
- What sort of physical environment would be required?

Testing of the game will possibly reveal hidden structural problems within the game, as well as simple administrative difficulties. It might appear, for instance, that instructions were confusing or contained contradictions, or that games were too heavily biased towards some outcomes to be truly competitive. Testing and revision allows for improvement. Rule interpretations could be explicitly formulated in future versions of game instructions.

7. EVALUATING SIMULATIONS

The characteristics by which games are designed, selected, and evaluated are similar. A game should be designed or selected so that it might be evaluated as practical and useful. Stadsklev has brought together in outline form a more or less exhaustive list of considerations for simulation evaluation, culminating in the classifications


DESIGN YOUR OWN SIMULATION
Design Criteria
What do you want to simulate? State your goals and objectives.
Input
What is really important to give reality to the simulation? What is involved? Persons, ideas, things, processes?
Roles
Concepts
Values
Norms
Interaction
What is to be done – by whom – and when? What are the rules? What are the actions? What happens as consequences of actions?
Play the game – try the simulation
Carefully note what happens.
Evaluate
Assess what happens according to the design criteria, input and interactions.
Redesign the game
Develop new design criteria, applications and interactions. Study the evaluation.
Try it again
From Demak and Dworkin

"when to use", "marginal use", and "when not to use". A game designed or selected for some particular class should be useful for that class. (Stadsklev, 1969)

Stadsklev's list of basic game characteristics includes these headings: printed materials, physical apparatus, supplementary materials, playability, money cost, sources, and availability. These are matched with a list of game requirements, including: functional characteristics, cultural characteristics, student characteristics, teacher characteristics and administration.

Stadsklev has also published a checklist form for simulation evaluation (Stadsklev, 1970). This is a good thing. As the author puts it, "Because of the relative newness of the game approach, there has been a consequent lack of time to develop a systematic procedure for analyzing and comparing them."

Not only methods for systematic comparison are needed, however. Whatever their playability and administrative ease, individual games must be evaluated in terms of motivational and instructional value. Even if it may be shown that some games may have educational usefulness, the instructional value of many classroom games is unknown.

The value of the technique of instructional simulation has been tentatively affirmed but not been fully proven. It does appear that some games, in the hands of enthusiastic and innovative teachers, have been effective teaching devices. Since simulation has been an innovation, however, only pioneering teachers have used it — and it may well be that the increased motivation of students is a result of infectious teacher enthusiasm and the novelty of the experience, rather than of the usefulness of the simulation itself. Much of their instructional value comes in classroom discussions of the game, in which participant actions are reviewed and alternate strategies considered. Here the teacher must exercise all his skills as a discussion leader.

What would be the effectiveness of a simulation game used by a hostile or skeptical teacher? True, no teacher should be using an instructional technique against his judgement, but the widespread adoption of "innovation" may encourage this unhappy situation.

What will be their acceptance once games are no longer novelties? Simulation gaming will not be a universal panacea, but will apparently become more than the exotic oddity rolled out for a week each year by the school's most eccentric teacher. Simulation games apparently have value. What must be evaluated is their role in the curriculum and their best employment.

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Special Paper Series edited by Edwin G. York, Coordinator
Occupational Research Development Resource Centers

CAREER DEVELOPMENT FOR ALL

CAREER DEVELOPMENT PROGRAMS FOR ALL:
An adaptation of a paper presented before the Appalachian Regional Commission, September 1969.

SPECIAL PAPER
JUNE
1971

by
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Bureau of Occupational Research Development
Division of Vocational Education

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CONTENTS

1. The Need for Career Development Programs for All
2. Major Elements of Career Development Programs in the United States
3. Element One: Occupational Awareness
4. Element Two: Preliminary Occupational Skills
5. Element Three: Career Planning
6. Element Four: Intensive Preparation for Employment or Further Education
7. An Orderly Revolution

1. The Need For Career Development Programs For All

Career development education – that aspect of an individual's life-long growth relating to his vocational possibilities, directions, accomplishments and his economic independence – is needed by *everyone*. There is much at stake: the future of both the individual and modern society requires the effective use of personal abilities and interests in the world of work.

The schools should provide assistance to *every* student in his career development because eventually every student must face the problem of occupational choice, skill development, job placement, and occupational adjustment in a rapidly shifting job market.

Occupational choice, job placement, and occupational adjustment may be delayed for an extended period of time – even into graduate school – but they are inevitable for all and not just a problem for those who face them before or immediately following high school graduation.

The need for schools to provide career development programs for all students is evident when one considers the costs society is now paying for neglecting this need. Perhaps the present waste of human resources and public funds is best documented by the First Annual Report of the National Advisory Council on Vocational Education:

> Racial unrest, violence and the unemployment of youth have their roots in inadequate education. Each year the ranks of the school drop-outs increase by three-quarters of a million young men and women. They enter the job market without the skills and attitudes employers require.
>
> They and the millions of others who are underemployed – among these the students who are graduates of our high schools but who are inadequately prepared for anything – are tragic evidence of the present inadequacy of our educational system.
>
> The failure of our schools to educate to the level of adequate employability nearly 25% of the young men and women who turn 18 each year is a waste of money, as well as of human resources. The Nation supports a galaxy of remedial programs, some of which have costs as much as $12,000 for every man or woman placed on a job. Those who remain unemployed may cost us $4,000 or more per year in welfare support for themselves and their children, who will repeat the dreary, costly cycle.
>
> The costs, the blighted lives, the discontent, the violence, and the threat of revolution, are needless. Schools can prepare young people to realize their potential.

Only recently have schools attempted to provide for the career development needs of all students. Major approaches throughout the nation are described in this paper. Hopefully, from such beginnings will come a major reform movement in American education. Such a reform should be welcomed by the professional educator as an opportunity for leadership in meeting basic educational needs, especially in a day of increasing accountability for results.

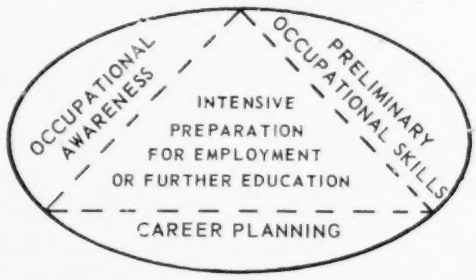
2. Major Elements of Career Development Programs in the United States

A wide variety of career development programs has sprung up throughout the nation since 1965, stimulated to a great extent by the Vocational Educaton Act of 1963. Their purposes and characteristics vary and overlap. An overview of these programs is presented here, and is organized by four major elements observable in these programs.

As has been noted by Bernard Kaplan, career exploration programs usually include: (1) gaining occupational awareness; (2) gaining preliminary skills; and (3) participating in career planning. This is a helpful analysis for purposes of this survey.

Four convenient handles are thus provided for describing recent American career development programs if specific vocational training is considered a fourth element. These major

FOUR ELEMENTS OF CAREER DEVELOPMENT PROGRAMS



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elements will therefore be examined in detail: (1) occupational awareness; (2) preliminary occupational skills; (3) career planning; and (4) intensive preparation for employment or further education through basic education and development of job skills and attitudes.

The diagram "Four Elements of Career Development Programs" shows their relationship. Central to career development is intensive preparation for employment or future education. Related to and supportive of the central element are development of appropriate awareness and skills, and career planning on an ongoing exploratory basis.

The New Jersey Model for Career Development Education on the adjacent page provides a concise overview of this inclusive plan for career development. For each level there is a brief description of the major educational tasks and a list of specific programs involved.

3. Element One: Occupational Awareness

The motive of occupational awareness programs is "initial exploration" — gaining a broad overview of the world of work and of the alternatives requiring closer attention.

Learners of all ages hopefully receive the following specific kinds of benefits from occupational awareness programs:

- a foundation for good attitudes regarding the worth and the function of man's work in our society.
- an understanding of the world of work that would contribute in a constructive way to the development of each one's self-image as a productive member of society.
- an ability to evaluate individual experiences as these relate and contribute to their eventual career choices.
- an opportunity to develop self-understanding and an awareness of their personal responsibility for making their own decisions.
- an opportunity to develop an attitude of respect and appreciation towards workers in all fields and in all levels of work.
- an understanding of their developing personal interests, attitudes, aptitudes, abilities and skills as they relate to future career decisions.
- an understanding of the broad range of occupations open to them through education.

It is not enough to dispense information about occupational life through conversations, printed materials, and audio-visuals. The learner must be actively involved in discovering the function of work in our society and his own prospects in becoming a productive member. His attitudes are important! His self-image is important! The newer programs emphasizing self-discovery have developed as an improvement on the older information-centered approach.

Three major programs and three brief instructional units designed to assist the student in gaining some of the above objectives will be described briefly in the following paragraphs.

Technology for Children Project

The Technology for Children Project, the first of its kind in the nation, combines technological activities with regular academic lessons in an attempt to help children learn and understand their regular subjects better while developing an appreciation of the role of technology in our society and the world of work.

Since 1966, this New Jersey program has introduced elementary pupils to technological concepts such as design, instrumentation, the uses of tools, and properties of materials. Rather than reading and talking about the world around them, project children become physically involved and do things. The reading, writing and talking become necessary and real.

Some activities experienced by participating children include: building and launching model rockets; writing and printing their own stories for distribution; experimenting with electricity; designing, operating and maintaining a real profit-making business; writing, producing and taping their own TV show; and countless other undertakings.

New Jersey Introduction to Vocations Programs

The Introduction to Vocations Program in New Jersey provides a flexible program which best fits the needs of its students and community. The teacher is encouraged to incorporate field trips, speakers, exhibits from business and industry, films, film-strips, occupational literature, and both individual and group guidance.

The guidance counselor plays an important role in the development of the New Jersey Introduction to Vocations Program. The counselor's cooperation with teachers makes it possible for each pupil to have individualized experiences appropriate to his own personal interests, abilities and needs.

Evaluations of the program have shown that the exploratory experiences have introduced students to many new curriculums and career opportunities. The field trips, job visitation days, and occupational speakers coming to the classroom are stimulating for both student and teacher. Many students have gained success and self-respect, developed more realistic goals and self-concepts, and made wiser course selections and long range plans because of the program.

Industry and business have been extremely interested and helpful, not only in providing speakers and visitation sites, but also by assisting in the development of cycling units on mechanical contracting, transportation, welding and others.

North Carolina Introduction to Vocations Program

North Carolina also has an occupational orientation program entitled "Introduction to Vocations". Its objective is to help students formulate plans regarding their occupational and educational future.

The five major learning experience areas included as an essential part of each unit in the course outline include:

- Discovering and understanding economic processes related to work.
- Discovering occupational opportunities and requirements.
- Exploring work opportunities and requirements.
- Self-appraising vocational interests and aptitudes.
- Exploring educational and other training or retraining opportunities.

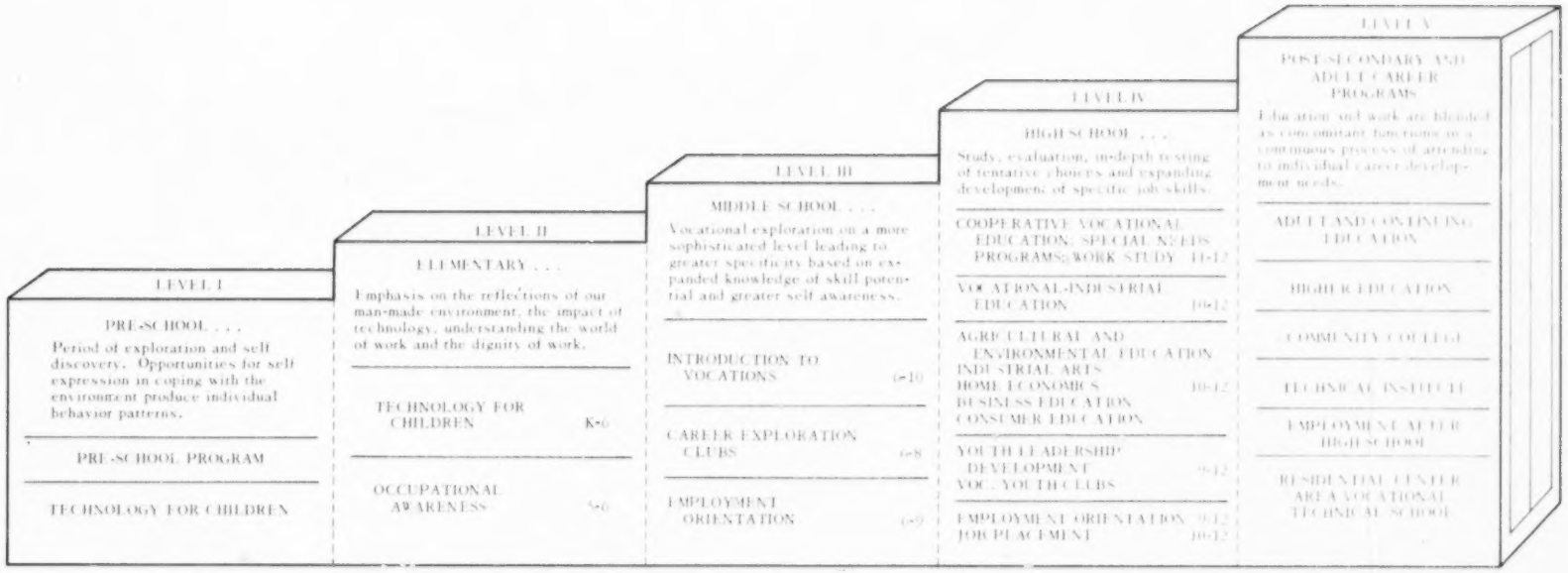
Three Brief Instructional Units

English classes for all students in some schools include "Getting the Job" units. Topics involved are: job application forms, the job interview, using the classified ads, using an employment service, getting a job, keeping a job, and advancing on the job.

Social studies, economics or history classes for all students sometimes include "World of Work" units. Topics appropriate to these units are: the dignity of all kinds of work; the economics of daily work; labor unions; free enterprise; technological change and cybernetics. This type of unit often features speakers from various employment fields coming into the classroom as well as student visits to business and industry.

Units on "Occupational Alternatives" sponsored by guidance personnel in some schools focus the student's attention on occupations in general, on occupational clusters, and on local occupational opportunities. They also draw attention to educational requirements for various occupational training programs in high school, post high school, technical institutes, private trade schools, community colleges, four year colleges, or further. These programs often feature films and speakers.

THE NEW JERSEY MODEL FOR CAREER DEVELOPMENT EDUCATION


LEVEL I
PRE-SCHOOL . . .
Period of exploration and self discovery. Opportunities for self expression in coping with the environment produce individual behavior patterns.
PRE-SCHOOL PROGRAM
TECHNOLOGY FOR CHILDREN
LEVEL II
ELEMENTARY . . .
Emphasis on the reflections of our man-made environment, the impact of technology, understanding the world of work and the dignity of work.
TECHNOLOGY FOR CHILDREN K-6
OCCUPATIONAL AWARENESS K-6
LEVEL III
MIDDLE SCHOOL . . .
Vocational exploration on a more sophisticated level leading to greater specificity based on expanded knowledge of skill potential and greater self awareness.
INTRODUCTION TO VOCATIONS 6-10
CAREER EXPLORATION CLUBS 6-8
EMPLOYMENT ORIENTATION 6-9
LEVEL IV
HIGH SCHOOL . . .
Study, evaluation, in-depth testing of tentative choices and expanding development of specific job skills.
COOPERATIVE VOCATIONAL EDUCATION, SPECIAL NEEDS PROGRAMS, WORK STUDY 11-12
VOCATIONAL-INDUSTRIAL EDUCATION 10-12
AGRICULTURAL AND ENVIRONMENTAL EDUCATION
INDUSTRIAL ARTS
HOME ECONOMICS 10-12
BUSINESS EDUCATION
CONSUMER EDUCATION
YOUTH LEADERSHIP DEVELOPMENT 9-12
VOC. YOUTH CLUBS
EMPLOYMENT ORIENTATION 10-12
JOB PLACEMENT 10-12
LEVEL V
POST-SECONDARY AND ADULT CAREER PROGRAMS
Education and work are blended as concomitant functions in a continuous process of attending to individual career development needs.
ADULT AND CONTINUING EDUCATION
HIGHER EDUCATION
COMMUNITY COLLEGE
TECHNICAL INSTITUTE
EMPLOYMENT AFTER HIGH SCHOOL
RESIDENTIAL CENTER AREA VOCATIONAL TECHNICAL SCHOOL

4. Element Two: Preliminary Occupational Skills

Programs enabling the student to acquire certain non-technical skills give him sufficient experimental orientation to favorably influence his behavior in subsequent occupational situations.

These skills are usually rudimentary or preliminary to actual competency development. They are provided to give the student more insight into the actual work or training involved. In some instances, they give the student an initial advantage for securing an entry-job in the local labor market.

Preliminary skills can be provided that relate to (a) work in general; (b) a specific job skill; (c) a general job skill; (d) pre-vocational training; and (e) pre-employment orientation. Examples of each of these types of skills are given below:

Work in general: Attendance, appearance, aptitude, and alcohol. These four cause more job loss than any other missing skill.

A specific job skill: how to run a lathe.

A general job skill: how to serve a customer; answering a business telephone.

Pre-vocational training: industrial arts, introduction to business courses, Introduction to Vocations.

Pre-employment orientation skills: income tax information; social security procedures and requirements; job application procedures; locating job openings; and how to read the "Want Ads" in a local, county, or state newspaper.

5. Element Three: Career Planning

Programs of career planning attempt to furnish the student with three major outcomes: (1) increased self-understanding and awareness, particularly as these relate to career potentialities; (2) the ability to analyze jobs and occupations with a knowledge of factors contributing to the total outlook about the job or the occupation; and (3) the ability to be more adept at planning one's career and vocational decision-making.

Basic to career planning programs are vocational counseling and job placement for all students. If these important services are provided, related activities will be meaningful. If these basic services are not available, the students will recognize that they are being asked to take seriously what the school is not taking seriously.

Career planning activities supplementing vocational counseling and job placement include the following: simulations and games; direct purposeful experiences; youth clubs; and using current technology.

Simulations and Games

Simulations and games are of real value as planning-related techniques. Special skits, role playing and career games are examples of this type of approach. Role playing can be combined with classroom instruction or group counseling sessions to simulate real life situations dealing with jobs or career planning. The group's activities can be reviewed and discussed through the use of tape recorders, television tapes, 8 mm. movies and slides.

One career game provides a technique for sixth graders to make decisions and actions as if they were operating in an environment of the future and to observe the results of their decisions and actions. The New Jersey Introduction to Vocations program has a Transportation Game. The North Carolina Introduction to Vocations programs has a successful "Job-Go-Lo" game.

Word games and crossword puzzles concerning careers have been especially successful when they have been developed by students, educators or advisory committees. Games should be carefully chosen and field tested before being used extensively.

Direct Purposeful Work Experiences

Work experience programs provide opportunities for progress in making career decisions. A large number of these work experiences are provided at the senior high school level, but increasingly, varieties of work experience are also being introduced at the junior high school level, especially in the ninth grade.

Non-profit or public supported job programs such as summer reforestation, beautification, and site development for the school or community provide students with job experience and sometimes pay a stipend.

Youth volunteer service programs through hospitals, homes for the aged, welfare programs, and services for the handicapped enable students, as volunteers, to gain experiences in the area of social services.

Work-study programs for dropouts and potential dropouts with heavy guidance overtones have been developed by several states. Two outstanding examples are:

(1) The Newark Opportunity Center for Youth, a joint project of the Newark Board of Education, seven major industries and the State Department of Education.

(2) The New York State experimental program called *STEP* or *School to Employment Program*, a work-study project emphasizing occupational guidance for fifteen year old potential dropouts.

The Junior Achievement movement is an example of young people developing and producing a product, and retailing it in the community with the assistance of local businessmen. In this program, students are given the chance to plan, design, manufacture and market a product, and to manage a small business operation.

School-based placement programs, while practically non-existant at this time, can be most effective in referring youth to part-time and summer work experiences of value to them on an exploratory basis. While job opportunities for junior high school students have been generally limited to babysitting and newspaper delivery, these areas are now starting to expand, especially as schools adopt this service to provide educational, guidance-related and work exploratory opportunities.

Youth Clubs

Vocational youth groups are an important way for students to engage in activities that broaden and enrich their knowledge of career fields. Examples of vocational youth clubs are *Distributive Education Clubs of America* (DECA), *Future Farmers of America* (FFA), *Vocational Industrial Clubs of America* (VICA), *Future Homemakers of America* (FHA), and *Future Business Leaders of America* (FBLA).

The PREP Club Program, sponsored by the Everett, Massachusetts Chamber of Commerce in conjunction with the public school district, serves as an excellent exploratory program. Students are given the opportunity to select specific vocations of interest to them and are then organized by interest groups into clubs of 15 to 20 members.

The excitement of watching young people "come to life" through these types of programs more than compensates for the hard work involved. There is no panacea, no complete formula to hand out. Each district, in cooperation with others, must develop its own vocational youth programs to obtain the best results for students and the community.

Current Technology

A sign of the future is the new computer-assisted guidance information retrieval system nearing completion. By combining oral and visual techniques, employing tapes, filmstrips, films and a computerized memory storing pertinent data on occupations, systems can give students access to information about a wide spectrum of occupations at the student's own level of maturity and his selected pace. Along with other approaches, such systems should enhance and extend the guidance program considerably.

David Tiedeman at Harvard developed an *Information System for Vocational Decisions*, using a computer, which was

scheduled for completion in July, 1969. Donald Super and Frank Minor with IBM have been field testing a similar system in Montclair, New Jersey.

In San Diego, California, a program has made it possible for students to learn of local vocational opportunities through the use of print-outs from a centralized office. Called *VIEW, Vocational Information for Education and Work*, the system utilized a keypunch, processing camera for making microfilm clips, and a microfilm reader which is available from the 3M Company.

Interactive Learning Systems, Inc. of Boston, Massachusetts has developed an operating, commercially available computer based college and vocational counseling system. Data files are updated annually, and vocational and technical training opportunities data must be developed on a state by state basis. New York, Massachusetts, and Ohio are already piloting this system for a number of school districts. Not only does this system show great promise, but costs can be as little as 2/3 of the average annual salary of a counselor to serve a high school of 500 students. Data phones and portable terminals are available for use and could be part of a regional service agency system.

6. Element Four: Intensive Preparation for Employment or Further Education

Basic education and development of job skills and attitudes provides the intensive preparation typically needed for employment or further education. Agricultural education, business education, distributive education, home economics, industrial arts, and vocational industrial education are the conventional programs to date. These have been the "work-horses" of itensive preparation for employment or further education. However, two comprehensive programs of career development may well affect the mass of students in the future even more than the conventional disciplines listed above.

One of these comprehensive career development programs usually occurs as a packaged effort occurring in a given school year. It is cooperative vocational education, an old and proven strategy providing vocational development through a planned and coordinated alternation of school-based instruction with actual involvement in a paid employment situation. This kind of program emphasizes personal counseling, job-related instructional classes in the school, youth clubs, and on-the-job training and supervision. This type of program is highly successful, but is ordinarily not available to all students because of the limited numbers of student employment stations.

The other comprehensive career development program is designed to be available to all and has the added advantage of involving a sequential arrangement of program ingredients suitable for continuous career exploration at appropriate stages throughout one's educational experience. New Jersey has the distinction of being the first state to actually operate a comprehensive career development program for all students of a given school district, involving grades K through 12.

In New Jersey we call this total career development approach "Governor Cahill's Career Development Project" because of the enthusiasm, support and statesmanship of New Jersey's Governor William T. Cahill, who spearheaded the securing of a $318,000 appropriation in the New Jersey Legislature for programs in Camden, New Brunswick and Rahway. Involved in this comprehensive program are the following:

- Early School
  - Pre-School–Grade 6 – Technology for Children
- Middle School
  - Grades 6–10 – Introduction to Vocations
- High School 8-12
  - Summer Coupled Work Study
  - Job Placement
- Career Resource Center
  - Audio-Visual Productions and Services
  - School-Industry-Cooperation Services

Details of this project can be found in the November 1970 Special Paper, "The Career Development Project", by Thomas W. Gambino.

7. An Orderly Revolution

Change is being felt in connection with career development programs throughout the nation. There is a growing dissatisfaction with traditional programs emphasizing occupational literature, lectures, and "canned" lectures on films or filmstrips. Career development programs have typically not been well organized, sequential, systematic or centering around the individual student who is maturing in his vocational development over a period of time.

Progress has been made in the refinement of programs for various phases of the student's career development. Key phases have been identified in this paper as occupational awareness, preliminary skills, career planning, and specific intensive vocational training. Each has a solid contribution to make.

Recognizing that career development must occur at a time of greatest relevance for the learner, New Jersey vocational educators are making a major breakthrough in providing all students in a district with a comprehensive career development program, kindergarten through 12th grade. The goals of this comprehensive approach are:

1. Early self awareness.
2. Capacity to deal effectively with the changing environment.
3. The opportunity to discover and productively use individual abilities.
4. Increased knowledge of occupational opportunities as an aid in making wiser career decisions.
5. An appreciation of one's personal responsibility to become a productive member of society.

The orderly revolution toward more effective career development programs for all students is an important opportunity for this state and nation because of these measurable results that can be expected:

- improved school attendance
- improved school performance
- improved appreciation for work of all kinds
- improved ability for "next step" planning for careers
- increased placement in jobs and/or continuing education
- decreased dropout rate
- decreased youth unemployment
- decreased remedial occupational education costs
- decreased urban racial tensions
- decreased welfare rolls

The extent of this revolution in education should not be underestimated. It is a major step for guidance services to seek to meet the needs of all the students. It is a major step for part-time employment to become a part of the curriculum and for a secondary school to become an employment agency. It is a major step for schools to resist our society's overevaluation of a college degree and underevaluation of preparation for all forms of work.

The schools need to give career development for all students the priority it deserves, and to develop a mix of programs appropriate to their students and their community. Without providing priority and flexibility, the schools will not meet today's challenge of developing effective career development programs.

Carl L. Marburger, Commissioner of Education
Robert M. Worthington, Asst. Commissioner of Education
Morton Margules, Assoc. State Dir. of Vocational Education
Harold Seltzer, Dir., Bureau of Occup. Research Development

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Special Paper Series edited by Edwin G. York, Coordinator Occupational Research Development Resource Centers

ANSWERS TO FIVE BASIC QUESTIONS ABOUT CAREER EDUCATION

Answers to Five Basic Questions about Career Education: A Brief Orientation for Administrators and Teachers as they plan, Implement, and Improve Nursery to Adult Career Education Programs

SPECIAL PAPER

APRIL 1972

by
Patrick Doherty
Director of Career Development

Bureau of Occupational Research Development

Division of Vocational Education

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1. What is Career Education?
2. Why Career Education?
3. Specifically, What Does Career Education Seek to Accomplish?
4. How Can a Local District Plan a Career Education Program?
5. How Can a Career Education Program Be Evaluated?

* * *

1. What is Career Education?

Career Education is an integral dimension of the nursery through adult curriculum which provides for all students a sequential continuum of experiences through which each individual may develop a more realistic perception of his capabilities and prepare him for entry and re-entry into employment and/or continuing education.

To understand what happens in Career Education programs, the reader should give careful attention to both what the school is doing and how the individual is developing for employment and/or continuing education in his unique total life pattern. Both of these considerations are important. Why? Let's take a closer look.

"What the school is doing" in the above distinction refers to the coordinated totality of instruction, related services and community-home-school resources which provides opportunities for the individual to explore, cope with, and develop his career potential. In contrast, "how the individual is developing for employment and/or continuing education" refers to an important and somewhat neglected facet of human development in which the individual – as part of his social, emotional, intellectual and physical development – gains a growing capacity for self-perception, for capitalizing on his widening experiences, and for structuring his unique life style as it relates to his occupational function. Consequently, Career Education must maintain a careful balance of emphasis on both the action of the nurturing institution (the school) and the active role of the emerging individual (the student). To neglect either is a dangerous course.

It can be argued with good cause that Career Education is as old as mankind. However, as an important dimension of modern education for everyone and everyone's children, Career Education must be recognized as a very current development under the leadership of vocational educators and vocational guidance counselors, and, most effectively, under the leadership of Dr. Sidney P. Marland, Jr., U.S. Commissioner of Education, who seeks to combine and revitalize all American education ("vocational"; "general education"; and "academic education") under this thrust.

2. Why Career Education?

The schools are being urged in various ways to adopt a pervasive commitment to the career development of all pupils through a well-planned nursery through adult program. At the same time the schools themselves should be acutely aware of the basic needs and problems demanding comprehensive and intensive Career Education and be showing considerable initiative in developing appropriate programs.

Career Education is greatly needed in the 1970's because this decade is and will be one of greater social and occupational change than the 1960's. The seventy-five percent of the high school population in our country seeking employment immediately following graduation should have a priority at least equal to those who are college-bound. Workers will need to be trained for emerging occupational fields, such as the environment, nuclear energy, and space exploration. Not only will preparation be needed for nearly all initial employment, but also most workers will need continuing occupational education.

Career education for the '70's has some compensating to do because even the best of our educational programs for preparing youth for employment have not been comprehensive or effective enough. All our children should begin getting a realistic view of the world of work even before they attend elementary school. Every junior high student should be provided economic orientation and exposure to occupational possibilities. Every high school student – no matter whether he drops out before graduation or not – should have been prepared to be employable and should have been prepared to return for further education when he or she is ready.

A major void in American life can be filled by career education. People – all our people – need self-fulfillment through self-support and satisfying, meaningful work. The tremendous shortage of qualified workers in certain fields must be met. There can be a drastic reduction in the extensive waste of human resources directly or indirectly caused by our present undervaluation of vocational education. The schools can regain the public's confidence and support by providing every exiting student – exiting at any level after his 16th birthday – with the option of employment or further education.

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A realistic and comprehensive nursery through adult career education program is needed for all students because very long-range experiences are needed to permit one to discover a realistic and promising career role. It takes a long time to develop a career pattern because the individual's varied experience encourages changes in his needs and interests.

Learning to be employable is at least as difficult and complicated as learning to read. The decade of the '70's is the time for the schools to emphasize both kinds of learning. It is time for this change.

3. Specifically What Does Career Education Seek to Accomplish?

Career education seeks to accomplish certain specific, measurable results for the individual student, for the school, and for the community.

The following objectives for students are not assigned a specific time in the student's life span; they may be observed and implemented as appropriate throughout his entire life:

1. To engage in self appraisal related to how people differ in skills, interests and abilities and how these differences will affect an individual's career development.
2. To understand the degree of practice and knowledge that is essential to attain "skill" status.
3. To be aware of the relevancy of school to life and work.
4. To perceive work as a function of man's pride, identity, fulfillment, and need for skillful and creative expression.
5. To know a wide variety and a number of levels of occupations through both directly planned and unplanned exploration.
6. To appreciate all types of work and the people who do them.
7. To know how to plan and to select sequential, occupational oriented experiences, and how these procedures contribute to a foundation for career planning suitable to his own individuality.
8. To be aware of changes that will take place in all types of work with advancements in knowledge, with the phasing out of certain kinds of jobs and with the need for continuous retraining to meet job requirements.
9. To understand the influences and pressures of economic, cultural and political aspects of society in life and work.
10. To understand the effect of attitudes and personality factors (social, personal, emotional) in school and job success.

The Career Education objectives for the educator are necessarily broad and process-oriented. They are important, however, because they set the stage for a realistic course of action in providing Career Education. Here are Career Education objectives for the educator:

1. To develop a Career Education curriculum appropriate on a nursery through adult continuum that is basically oriented toward benefitting mankind.
2. To develop a curriculum that builds career development patterns of behavior that motivate the individual towards immediate and future occupational decisions which are effective for him.
3. To provide a system of Career Education management for maximum intergration of resources: human, material and fiscal.
4. To provide a system of accountability and evaluation that may be reflected in a more effective Career Education nursery through adult curriculum.
5. To design a flexible model for nursery through adult Career Education that expresses the changing needs of the school, home and community.

The community served by the school can expect some desirable results from Career Education programs. The community needs self-sustaining participants in economic life, cooperative participants in community life, and an effective and efficient school system. The following community benefits are provided as objectives:

1. Decrease the dropout rate
2. Increase enrollment in vocational education courses
3. Increase placement in jobs and/or continuing education
4. Improve school attendance
5. Improve school performance
6. Improve ability for "next step" planning

4. How Can a Local District Plan a Career Education Program?

One technique which may be used for local planning is the review and evaluation of existing programs as a continuing process. This will provide a basis upon which logical and practical alternatives may be explored and/or implemented.

The specific goals for a local educational agency to use in this planning for a Career Education program which is appropriate to the community and its publics may be as follows:

GOAL A: To become knowledgable in the philosophy, function and operation of a Career Education program with specific emphasis placed upon the ability of Career Education programs to meet needs idiosyncratic to the local education agency.

GOAL B: To establish a task force, operating under the direction of the superintendent, that will be responsible for gathering data concerning a Career Education Program for the local school district.

GOAL C: To review data indicating current status, and to design logical Career Education model alternatives suitable for local adoption. This assumes the existence of gaps between current status data and Career Education goals.

GOAL D: To report comprehensive Career Education data through a predetermined dissemination system.

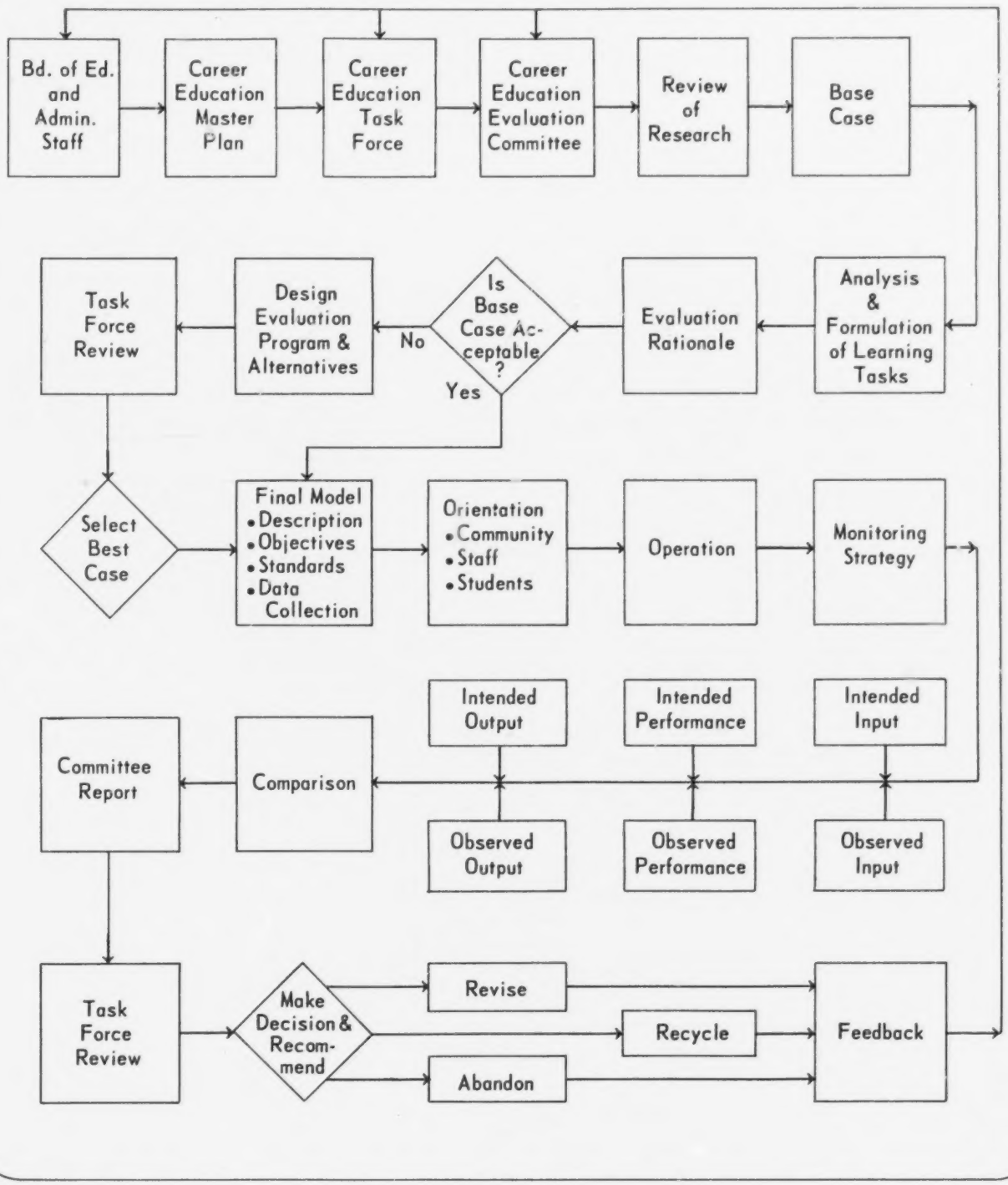
GOAL E: To develop process and product objectives to meet the needs of the local nursery through adult population.

GOAL F: To select a Career Education model along the pre-school through adult continuum.

GOAL G: To attend to the special needs of the disadvantaged and handicapped students and other target populations.

GOAL H: To design the operational leadership and staff organization to carry out the Career Education program in the school district.

CAREER EDUCATION EVALUATION SYSTEMS MODEL



One direction the local educational agency may wish to follow in achieving some of their Career Education goals is the cluster concept. The Bureau of Adult, Vocational, and Technical Education in the U.S. Office of Education has identified and codified 15 of these occupational clusters. They are as follows: Agri-Business and Natural Resources; Business and Office; Communication and Media; Consumer and Homemaking Education; Construction; Environment; Fine Arts and Humanities; Health; Hospitality and Recreation; Manufacturing; Marine Science; Marketing and Distribution; Personal Services; Public Services; and Transportation.

5. How Can a Career Education Program Be Evaluated?

Evaluation is essential to the improvement of Career Education. A direct outcome of a continuous evaluation process with staff involvement should be a noticeably better match between goals and results.

The major thrust of evaluation should be conducted by the program people involved since they are the persons who will ultimately be responsible for implementing revisions. Self-evaluation is never an easy accomplishment. Objectivity is essential; staff disposition and competency for this goal must be achieved. It is intended that the self-study approach to evaluation for Career Education programs will enable members of the group to work together, and to set and define the action.

Careful attention should be given to the design of the evaluation. Great emphasis should be placed on the interpretation of findings. A comprehensive review of the effectiveness of the total program, as well as a total plan for improvement based upon priority needs, is the desired outcome.

It is suggested that third party evaluation services be contracted to obtain an unbiased estimate of program effectiveness.

Specific suggestions for evaluation of Career Education programs are presented in the form of a model system for evaluation. It is a sample system presented for the planner's consideration, and not a normative system.

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Harold Seltzer, Dir., Bureau of Occup. Research Development

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Special Paper Series edited by
Edwin G. York, Coordinator
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COMPUTERIZED CAREER INFORMATION

Computerized Career Information for Improved Career Guidance Services; Key Information of Value to Educators Considering the Use of Such Systems.

SPECIAL PAPER

June 1972

by
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Bureau of Occupational Research Development — Division of Vocational Education

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Bibliography

1. THE NEED FOR IMPROVED CAREER GUIDANCE

Study after study reveals that the majority of graduating high school students have unrealistic and inappropriate plans for their occupations. How long can society afford to permit this to occur?

A major study (Super and Overstreet) of the vocational maturity of ninth grade boys in 1960 revealed that at the very time of their choices of a high school curriculum, they planned to enter occupations apparently inappropriate in terms of the intellectual and educational requirements of those occupations. Aspiration and reality had not been in close conversation.

A national survey (Coleman) of 12th grade students revealed that a majority of twelfth graders expected to occupy professional or managerial positions when they finished their education. Everybody is apparently planning to be a chief!

Student's career planning tends to be rather unstable over the years. A major survey and follow-up study (Project Talent) revealed that the career plans of tenth grades were – three years later – stable for only 19% of the boys and for only 29% of the girls.

The situation is aptly described by John C. Flanagan in a chapter "The Need for Improved Vocational Guidance" (in Gallagher):

"...the current programs for providing vocational guidance to secondary school students are not nearly as effective as the demands of the present complex society require."

Major improvements in career guidance operations have certainly occured in the last decade. Two major changes have undoubtedly been the restatement of goals and the broadening of age span focus; these two changes have been well stated by C. Gilbert Wrenn for the Commission on Guidance in American Schools:

"...primary emphasis in counseling students (should) be placed on the developmental needs and decision points in the lives of the total range rather than the remedial needs and crises points in the lives of a few students, with the major goal of counseling being that of increased self-responsibility and an increased maturity in decision making upon the part of the student.

"Vocational choice (should) be seen as a process extending over years and not as an event, that the student be helped to make a series of choices as he becomes increasingly realistic about himself and the occupational world, that urging a student to 'make up his mind' in the sense of a final settlement may be considerably more harmful than helpful."

The effect of technological change on jobs and the dangerously high rate of dropouts during high school – now at about 22% – have exasperated the problem of career guidance so that all possible improvements must be considered. Computers represent one of several major innovations now being implemented.

The Vocational Education Act of 1963 provided funds for improved vocational guidance, and the Division of Comprehensive and Vocational Education Research, Bureau of Research in U.S.O.E. have funded many projects to improve counseling and guidance especially for those students who will not get college degrees.

2. THE PROMISE OF COMPUTERS

Experience to date demonstrates that there has been major headway in using computers for career guidance for the following functions:

(1) highly routine information handling as an aid for counselors

(2) replacing some current counselor functions with machine operations

(3) field testing of experimental systems for computer assisted career guidance

The number of federally funded projects concerned with completely automated systems of vocational guidance totalled nearly twenty in 1970, according to Arthur J. Roach as revealed in his speech at the annual American Personnel and Guidance Association Convention, March 22, 1970. However, most counselors have had little direct contact with computer assisted systems, other then

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national systems concerned with testing and college admissions operations, or local student record keeping and scheduling.

Claims that computers and related technology have had a major impact on counseling during the last five years – as made by Loughary and Tondow in 1968 – are based upon a few counselors having nearly continual experimentation with advancing computer technology, and not upon any universality of computer applications to counselor problems. The average public school guidance counselor continues to function as a slave to a rather prodigious paper – shuffling administrative nightmare.

Every major computerized guidance service has its own rationale. These rationales are somewhat contradictory and share consensus only on the most general levels, such as that there is a great need for such systems and that students should directly benefit from them.

3. RECENT COMPUTER AIDED CAREER GUIDANCE SYSTEMS

Below are presented, in alphabetical order by acronym, short descriptions of seven of the most prominent computerized guidance efforts to date.

Computer assisted career guidance systems have generated considerable descriptive material, much of which is available in the ERIC system. Two useful more-or-less comprehensive summaries are Perrone and Thrush's "Vocational Information Processing Systems: A Summary," appearing in the June, 1969, issue of *Vocational Guidance Quarterly* and Part II of DHEW's *Computer Based Vocational Guidance Systems*, which gives fewer, but longer, descriptions. The material in this section was drawn from these works, as well as from the literature of each of the projects.

(CACIS) Computer Assisted Career Information System – Asbury Park, NJ (Kenneth Benus)

The Computer Assisted Career Information System differs from the other listings of this section in that it has not yet been fully implemented. However, New Jersey educators will probably be interested in such a nearby development.

The Computer Assisted Career Information System will be part of a Career Education Department and fully integrated with the continuing efforts of Asbury Park's Career Resource Center. This system's primary objectives are to generate student interest in career planning and to improve the realism of student career decisions.

The Computer Assisted Career Information System affords the Career Education program the capabilities of developing, analyzing, synthesizing and retrieving data necessary for: the research and development of labor manpower forecasts; analysis and scoring of Career Education assessment instruments; community resources programs; full and part-time job placement; follow-up of all exiting students; a data bank on each student for occupational information, career counseling and educational counseling; and a record of business and industry resources.

Although centered in the Asbury Park School District, the computer will serve six cooperating school districts in the first year of operation with the above mentioned services. The computer center's aim is to extend these services from Asbury Park to upwards of 200 different school districts in New Jersey over several years. Each district would make a contribution to the computer center at Asbury Park, both in terms of money and data to be statistically analyzed for the Career Education program uses. The advantages of such an operation are numerous and highly beneficial to the Career Education effort in New Jersey.

(CAOG) Computer Assisted Occupational Guidance Program - Pennsylvania State University (Joseph T. Impellitteri)

Objectives – To provide an easily updated individualized occupational information system; to develop a process whereby youth could develop their own individualized frameworks of the occupational structure; and to provide an experience for youth to acquire, by simulated practice, operational strategies in relating their abilities and interests to occupational opportunities.

(CVIS) Computerized Vocational Information System, Willowbrook High School, Villa Park, Illinois (JoAnn Harris and James Godshalk)

Objectives – To present to students an organized computer system for vocational decision making and to make information about occupations and students more available to counselors; and to allow students to explore occupations in relation to their own abilities, achievements, and interests. CVIS is probably the best-known of the existing systems.

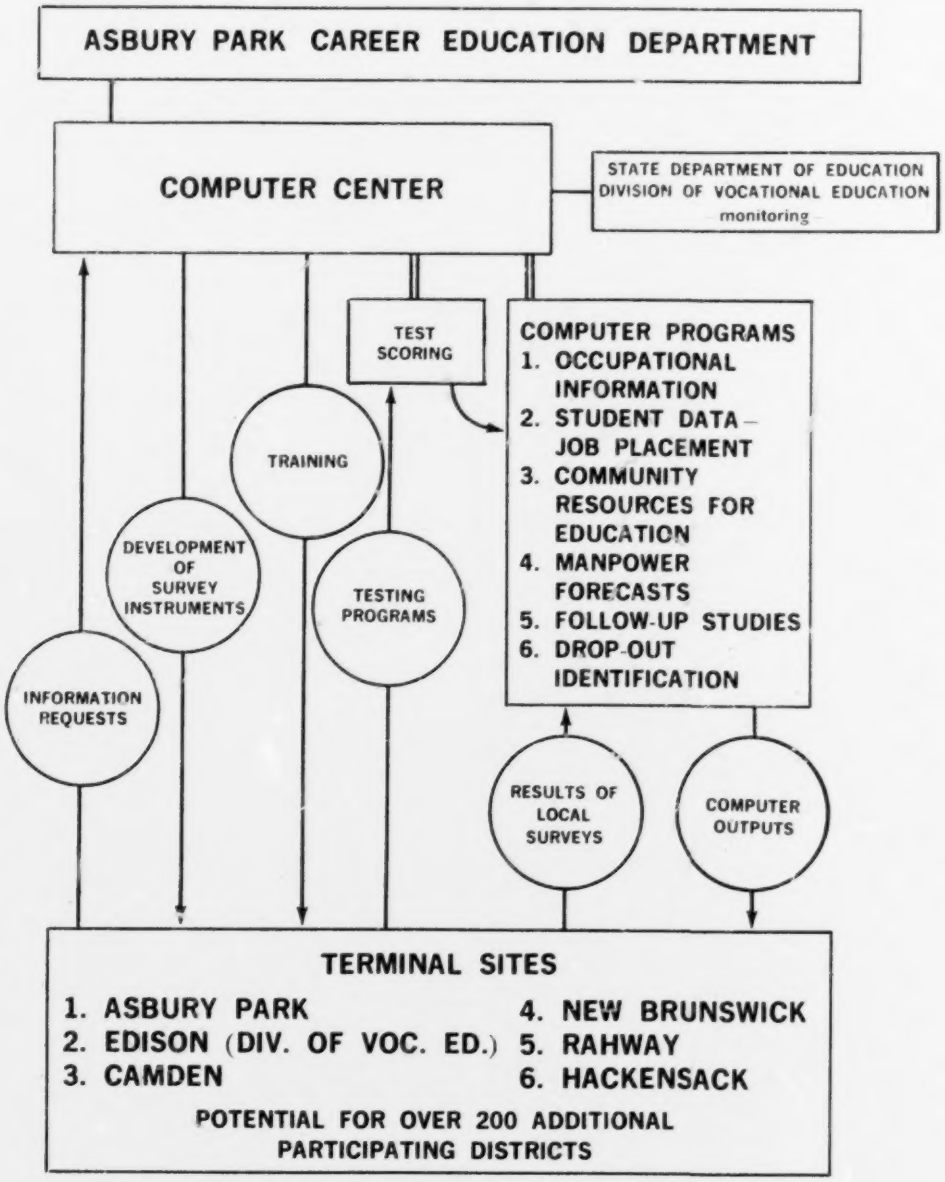
(ECES) Educational and Career Exploration System – IBM, Advanced Systems Development Division (Frank J. Minor, Roger A. Myers, Donald A. Super and others).

Objectives -- The objectives were to design an experimental computer-based learning environment which might be used as part of the educational and vocational guidance services in schools. The system would be designed to benefit both the student and the counselor. ECES is apparently not commerically available, and IBM seems to have switched to promoting CVIS, which may easily be run on IBM equipment.

(GCSS Guidance Counseling Support System - IBM, Advanced Systems Development Division, SRA (Frank J. Minor, Donald G. Super, Roger A. Myers, David V. Tiedeman, Guy Pilato, King Gillen, Ted Friel)

Objectives – The objective of the project is to design a computer-based learning environment to be used as part of vocational guidance services found in educational institutions. The system would be used by the student in a conversational and interactive mode. GCSS apparently was a prototype version of ECES.

INFORMATION FLOW OF THE ASBURY PARK COMPUTER ASSISTED CAREER INFORMATION SYSTEM



(ISVD) Information System for Vocational Decisions – Harvard University, Cambridge, Massachusetts (David V. Tiedeman, Michael Wilson, Robert P. O'Hara, Edward Landy, Wallace J. Fletcher, Allan B. Ellis,

Objectives – The major objective of this project was to improve vocational decision-making through the use of a computer-based training program. The program was so designed that the student could relate knowledge about himself to data about education, training, and work, and could thereby create information on which he can base career decisions. The entire program linked person, computer, and teacher or counselor in such a way that the student conducted a dialogue with the computer, and the counselor assisted in interpreting and evaluating the decision-making process. The ISVD had gone the way of the passenger pigeon: it has become extinct.

(TGISS) Total Guidance Information Support System-Bartlesville Public Schools, Bartlesville, Oklahoma;

Research Foundation, Oklahoma State University (Tommy L. Roberts and Ed Forsberg)

Objectives – To plan, develop, implement, and appraise a prototype computer-support system specifically designed to facilitate the counselor function in the student decision-making process through the application of information retrieval, gaming, diagnostic, and conversational techniques; to develop a general theoretical framework to undergird a counselor-computer interactive information support system; to determine system specifications in terms of input and output requirements of users; to determine hardware configuration; to design and write system programs; and to train users of the system.

4. CAREER DEVELOPMENT THEORIES USED IN COMPUTERIZED GUIDANCE SYSTEMS

Designers of computerized guidance seem to have integrated theories of vocational choice and career development into their systems in three ways: (1) with no formal theoretical base; (2) through a mixture of elements of career development theories; and (3) with a commitment to some single theory of career development.

The lack of a theoretical base is not necessarily bad. "Packaged" systems of occupational and continuing education information have no formal theoretical justification, but these are usually intended as simple informational aids to counselors and students. Flexibility exists, not within the computer programming, but with the application of the informational service within the school.

Systems based upon a mixture of theoretical elements may suffer from internal contradictions. However, some synthesis may be useful where strengths of theories are combined and weaknesses eliminated. Osipow's *Theories of Career Development* may be useful in describing the strengths and problems of the better known theories of career development.

Systems based upon some single theory of career development are at least internally consistent, and may carry the same strengths and weaknesses as the theories themselves. Not too surprisingly, the projects involving Tiedeman (ISVD) and Super (ECES), are largely based upon the career development theories of Tiedeman and Super. Another well known computerized system, Project CVIS, is based upon Anne Roe's thought.

Career development theory has its greatest impact on computerization in the organization of occupational information, methods of "matching" (where this is attempted), and in routines to aid in student decision-making.

5. ONE IMPORTANT FUNCTION: DIAGNOSIS AND PREDICTION

Diagnosis and prediction are among the more readily imaginable functions of computer based guidance systems.

The integration of student and occupational information by computer theoretically should permit counselors to more creatively provide for individualized counselling approaches.

However, at present, only a few such systems make use of student information for any sort of diagnosis or prediction. For example, both the Willowbrook Computerized Vocational Information System and the I.B.M.'s Educational Career Exploration System make crude predictions of success in institutions of continuing education and selected occupations on the basis of high school class work.

Problems exist in the use of predictions. The potential for misuse of such information by counselors, parents, teachers and students is considerable and underlines the importance of adequate counselor education and training.

In the future the data base on individual students will probably be greatly extended to increase the capacity for generating better predictions. Needed are inputs of accurate measures representing socio-economic and ethnic influences.

6. A SECOND IMPORTANT FUNCTION: AIDING STUDENT DECISION-MAKING

Questions of occupational choice and decision-making lie at the heart of most theories of career development. Whether or not career guidance is formally justified in terms of career development theory, it is concerned with aiding student decision-making.

However, there are great unknowns in the area of student's decision-making. For example, Donald Super, in developing a counseling model for a computer-support system, revealed that:

"...although we know something about the kinds of planning adolescents do, and even how much of each kind, we know little about how to facilitate planning. We found that, although the 'how to do it' literature abounds in forms for self-analysis and for plotting one's career, these are strictly arm chair developed even though sometimes classroom-tested for user acceptability."

Super may be somewhat more honest than other developers of theory in admitting the difficulty in formulation and implementation of decision theory for computerization.

The ISVD, with its elaborate programs, probably represents the most extensive attempt at implementation of decision theory in computerized career information systems. This system's complex natural language programs were necessitated by the desire that natural language was basic to free student-computer interaction.

Tiedeman, comparing and contrasting the ERIC System and ISVD, sees a distinction in that ERIC does not necessarily interest an inquirer in inquiry itself, which the ISVD, through its monitor, does. The ISVD program allows for the creation of individual planning processes, within the context of the computer program itself. Despite ISVD's difficulties, perhaps an answer does lie in the sort of flexibility ISVD provided.

7. A THIRD IMPORTANT FUNCTION: CAREER INFORMATION STORAGE AND RETRIEVAL

Storage and retrieval of occupational and continuing education information is one of the more common

applications of computer technology in guidance. Students receive information necessary for job placement and for placement for further training. Some systems do only this. Others provide this information as an aid to student decision-making, or as a basis for diagnosis and prediction.

Differences arise in methods of classification of information and in methods of information retrieval. Willowbrook's Project CVIS, for example, is based upon Roe's Classification System, with the following occupational areas: Service, Business Contact, Organization, Technology, Outdoor, Science, General Cultural, and Arts and Entertainment. Roe's six levels (Professional and Managerial 1; Professional and Managerial 2; Semi-Professional and Small Business; Skilled; Semi-skilled; and Unskilled) are crossed with occupational areas to define particular occupations. Student performance within eight areas analogous to occupational areas was rated on a six level scale also. Thus, student performance was roughly correlated with Roe's levels within occupational areas.

The CVIS Program for the Junior High School Level, described as still experimental, relies upon Holland's classification of personality types. The rationale for the difference between the junior high school level program and the secondary level program is not, however, clearly defined.

ISVD, with more elaborate programs for decision-making, seems to be less concerned with the conceptual framework for the organization of occupational information. Considerable thought was invested here in access routines, but ISVD, unlike CVIS, does not rely on inflexible categorization to determine acceptability of given occupations for students. ISVD has three basic "data-files" – educational, military, and vocational – with a system of further classification particular to each.

Interactive Learning Systems (ILS) Guidance Information System, an almost pure form of the simple data bank, has these programs: college information; occupational information; and scholarship and financial aid information. The occupational information program, like most others, is based upon the Dictionary of Occupational Titles.

8. OPERATIONAL CONCERNS

The educator contemplating implementation of computerized career guidance should be aware of the operational problems that may be encountered and workable strategies for their elimination.

A. Costs

The most obvious problem is cost. The cost of a computerized guidance system may vary, but some of the following expenses are likely to be involved: commercial systems costs, equipment purchase or rental, software, computer time, training, personnel, and facility renovation. Among aggravating factors are the common reliance upon undependable outside funding, the usual development for research purposes without realistic cost consideration, and the loss of hitherto 'free' services, such as teacher record-keeping. School officials are generally faced with a choice between expensive local development or importation of uneconomical research systems. Common strategies for overcoming economic problems include:

1) Location of new funding sources.

2) Time-sharing with industrial users or with other school districts on a regional basis.

3) Use of computers for other purposes, including administrative and computer-assisted instruction.

4) Use of commercial systems, which may be priced competitively.

B. Organization and Personnel

To a great extent, the expense of computerization has brought a tendency toward cooperative arrangements. Few districts operating independently without additional funds could afford computers or trained personnel. Purchase of computer time may be quite expensive also, and the use of off-time may not be appropriate for student use.

Computer projects have historically been organized in many different ways, and many other untested forms appear feasible also. Systems have been developed by private corporations, consortia of various sorts, universities and public schools, and by combinations of these organizations. Systems have served in individual schools, school districts, and in regional arrangements.

Organizational form may not matter in itself, as long as the structure is useful in attaining the objectives of the project. The single point most emphasized by writers in the area is the necessity for counselor involvement in the planning and implementation of computerization.

Computerization may affect the school personnel situation in two ways: through the liberation of counselor time and through the need for computer systems personnel. A basic problem here is the weighing of dissimilar benefits and costs. Different systems will bring different configurations of amount and type of counselors time freed and computer personnel required.

Some writers on this topic are primarily concerned with student record keeping, which may be involved in some computer-assisted career information dispensation functions, freeing the counselor for "counseling". Some of these systems, however, have nothing to do with student record-keeping.

Commercial packages of occupational information without any relation to student records, may not require any school investment in computer personnel. Locally developed systems embodying integration between student records and occupational information probably would require such investment. Costs could be diluted through the use of computers for a variety of administrative tasks.

The number of type of computer personnel required will depend entirely upon the type of project considered.

C. Facilities

Like personnel needs, facilities will depend entirely upon the type of system desired. Installation of terminal

sites linked to some already established computer center may require relatively little facility alteration. Establishment of a computer center itself may involve considerable renovation, especially in re-wiring and air-conditioning.

Maintenance of a computer facility may bring to the educator hardware problems not found in packaged commercial systems. Although there is no single answer to these problems, reliance upon proven and reliable equipment, rather than newer and untested equipment, is advisable.

D. Psychological Problems

Four psychological problems related to such systems are, according to Arthur J. Roach: (1) counselor antipathy to new clerical tasks involved in computerization; (2) student reaction to their experience with computers; (3) counselor fear of job displacement; and (4) the fear of impersonalization by both counselors and students.

A special problem is seen in the tendency for the computerization process to dictate requirements as to which information is included and which programs are used. Counselors must make sure computerization serves them and their students.

Specific strategies for overcoming psychological problems related to computer assisted guidance systems include:

- Training of counselors and students in the use of equipment.
- Informing counselors of system capabilities and benefits.
- Involving counselors in planning.
- Evaluating systems for the degree to which they meet the expectations of counselors and students.

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Carl L. Marburger, Commissioner of Education
Stephen Poliacik, Assistant Commissioner of Education
Morton Margules, Associate State Director of Vocational Education (Ancillary Services)
Harold Seltzer, Director, Bureau of Occupational Research Development

* * * * *

Special Paper Series edited by Edwin G. York, Coordinator Occupational Research Development Resource Centers

WHY CAREER EDUCATION? THE FACTS

Why Career Education? The facts behind the nation-wide movement for schools to accept accountability for placement of all students in employment and/or continuing education.

SPECIAL PAPER
APRIL
1972

by
Ms. Lynda A. Forsythe, Staff Writer, The National Advisory Council on Vocational Education
and
Edwin G. York, Coordinator, N.J. Occupational Research and Development Resource Centers

Bureau of Occupational Research Development — Division of Vocational Education

LOOKING AT THE FACTS

Why Career Education? Why should schools accept accountability for preparing and placing *all* exiting students either in employment and/or continuing education? The facts are now available. And they provide argument after argument for the widespread development of Career Education.

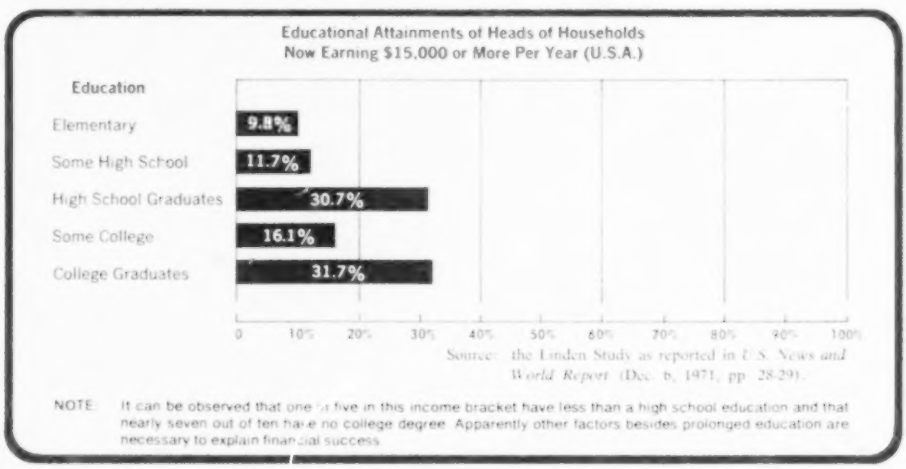
Illustrated in this special paper are seven verifiable facts, representing the most current information available from authoritative sources. See the section "Sources of the Data" for further details.

Interpretations of this data as supporting the need for comprehensive Career Education programs are the responsibility of the authors. However, these interpretations are very common and the authors cannot claim any particular originality for them.

The facts illustrated below are as follows:

- **FACT 1** ECONOMIC SUCCESS IS AFFECTED BY BUT NOT DETERMINED BY EDUCATIONAL ATTAINMENT
- **FACT 2** JOBS IN THE '70's DEMAND SPECIALIZED TRAINING, NOT NECESSARILY A COLLEGE DEGREE
- **FACT 3** THE PRESENT SECONDARY SCHOOL CURRICULUM IS TYPICALLY NOT REALISTIC IN TERMS OF MEETING STUDENT CAREER NEEDS
- **FACT 4** CHANGES IN OCCUPATIONS (NOT JUST EMPLOYERS) WILL BE ACCELERATED IN THE FUTURE
- **FACT 5** THE TYPES OF AVAILABLE JOBS WILL CHANGE DRASTICALLY IN THE FUTURE
- **FACT 6** IN THE FUTURE, INVENTIONS WILL BE MORE FREQUENT AND JOBS WILL CHANGE MORE RAPIDLY
- **FACT 7** UNEMPLOYMENT IS AN OVERWHELMING PROBLEM—NOT A 5% TO 24% STATISTIC—WHEN THERE ARE MANY JOB VACANCIES BUT **YOU** ARE UNEMPLOYED BECAUSE **YOU** LACK THE NECESSARY SKILLS

FACT 1 ECONOMIC SUCCESS IS AFFECTED BY BUT NOT DETERMINED BY EDUCATIONAL ATTAINMENT



Source: the Linden Study as reported in *U.S. News and World Report* (Dec. 6, 1971, pp. 28-29).

NOTE: It can be observed that one in five in this income bracket have less than a high school education and that nearly seven out of ten have no college degree. Apparently other factors besides prolonged education are necessary to explain financial success.

Therefore — We need CAREER EDUCATION—preschool to adult— to orient all to the world of work.

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FACT 2

JOBS IN THE '70's DEMAND SPECIALIZED TRAINING, NOT NECESSARILY A COLLEGE DEGREE

U.S. JOB OPENINGS DURING THE '70's

17% of jobs require a 4-year college degree
50% of jobs require training beyond high school but less than 4 years of college
30% of jobs require high school level vocational training
3% allowance for shifting patterns in manpower demand-supply needs

Source: U.S. Department of Labor, *Occupational Outlook Handbook, 1972-73.*

Therefore

We need CAREER EDUCATION to provide students with insight, information and motivation concerning specialized training as well as professional education.

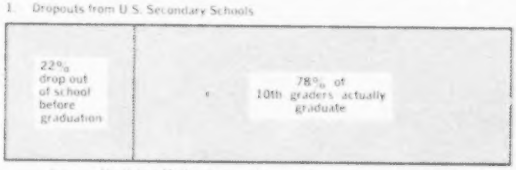
FACT 3

THE PRESENT SECONDARY SCHOOL CURRICULUM IS TYPICALLY NOT REALISTIC IN TERMS OF MEETING STUDENT CAREER NEEDS

WHAT'S HAPPENING TO THE STUDENTS?

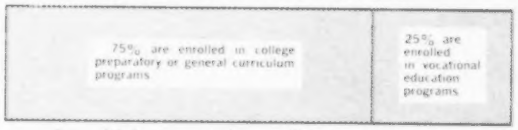
(The following three graphs should not be combined. However each is true of U.S. Secondary School students.)

1. Dropouts from U.S. Secondary Schools



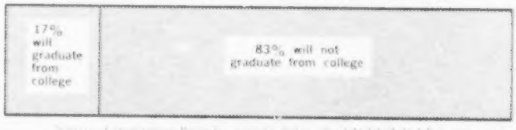
Source: Dr. Robert D. Bhaerman, Program Coordinator, Bureau of Adult, Vocational and Technical Education, U.S. Office of Education, remarks before the Regional Industrial Development Corporation, St. Louis, Missouri, October 19, 1971.

2. Choice of Curriculum among U.S. Secondary School Students


75% are enrolled in college preparatory or general curriculum programs
25% are enrolled in vocational education programs

Source: U.S. Commissioner of Education, Address before the Annual Convention of the National Association of Secondary School Principals, Houston, Texas, January 25, 1971.

3. Relatively Few U.S. Secondary School Students Graduate from College

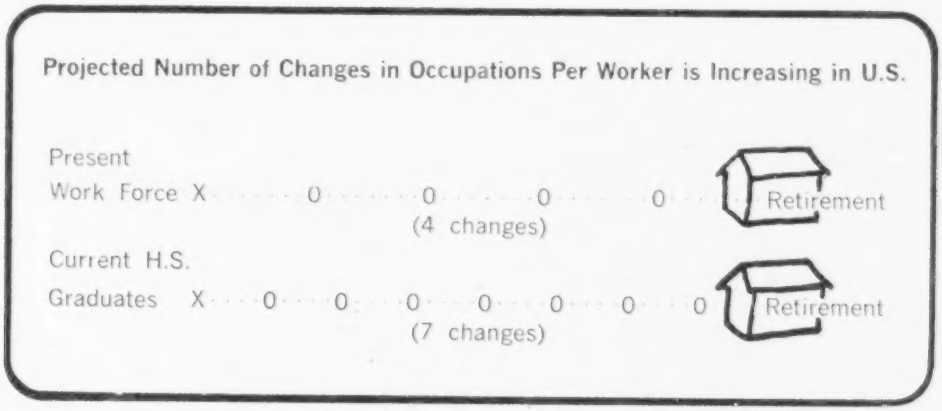


Source: Congressional Records, remarks by Senator Harrison A. Williams, Jr., New Jersey, before the SAVE/NAVE joint meeting, San Antonio, Texas, April 17, 1971.

Therefore

We need CAREER EDUCATION for all students to reduce the gap between unrealistic educational programs and career needs.

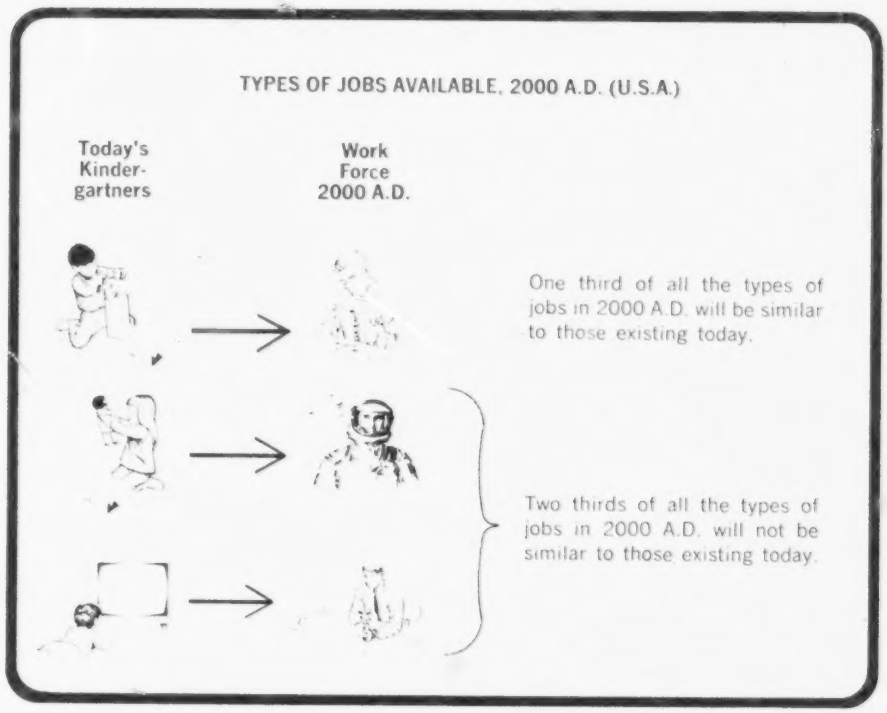
FACT 4 CHANGES IN OCCUPATIONS (NOT JUST EMPLOYERS) WILL BE ACCELERATED IN THE FUTURE


Projected Number of Changes in Occupations Per Worker is Increasing in U.S.
Present
Work Force X 0 0 0 0 Retirement
(4 changes)
Current H.S.
Graduates X 0 0 0 0 0 0 0 Retirement
(7 changes)

Source: U.S. Department of Labor, Bureau of Labor Statistics

Therefore → We need CAREER EDUCATION for all students to help them maximize their potential despite the many changes in their occupations.

FACT 5 THE TYPES OF AVAILABLE JOBS WILL CHANGE DRASTICALLY IN THE FUTURE

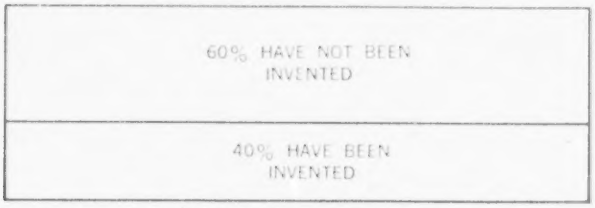

TYPES OF JOBS AVAILABLE, 2000 A.D. (U.S.A.)
Today's Kinder-gartners
Work Force 2000 A.D.
One third of all the types of jobs in 2000 A.D. will be similar to those existing today.
Two thirds of all the types of jobs in 2000 A.D. will not be similar to those existing today.

Source: Congressman James Symington, as cited in *Industrial Development and Career Education*, St. Louis Regional Industrial Development Corporation, Room 400, Pierre LaClede Building, 7701 Forsyth Blvd., St. Louis, Missouri 63105, Oct. 11, 1971.

Therefore → We need CAREER EDUCATION to provide all students with broad career orientation, personal flexibility, and readiness for retraining.

FACT 6 IN THE FUTURE, INVENTIONS WILL BE MORE FREQUENT AND JOBS WILL CHANGE MORE RAPIDLY

PRODUCTS TO BE MADE IN THE '70's (U.S.A.)



Source: Stanford Research Institute, as cited in *Industrial Development and Career Education*, as in Fact 5.

Therefore We need CAREER EDUCATION to orient students towards the rapidly shifting employment picture.

FACT 7 UNEMPLOYMENT IS AN OVERWHELMING PROBLEM—NOT A 5% TO 24% STATISTIC—WHEN THERE ARE MANY JOB VACANCIES BUT YOU ARE UNEMPLOYED BECAUSE YOU LACK THE NECESSARY SKILLS

- **MANY IN THE U.S. WORK FORCE FACE UNEMPLOYMENT**

  . . . in 1971, the unemployment rate was 5.9%, the highest in a decade (4.9% in 1970, and 3.5% in 1969).

  Source: U.S. Dept. of Labor, Bureau of Labor Statistics.

- **TEENAGERS OFTEN FACE UNEMPLOYMENT**

  . . . in many parts of our country, 1 out of 5 teenagers 16-19 years old are both out of school and out of work.

  Source: Dr. Robert M. Worthington; remarks before the Regional Industrial Development Corporation, St. Louis, Missouri, Oct. 13, 1971.

- **HIGH SCHOOL GRADUATES, ESPECIALLY THOSE WITHOUT JOB SKILLS, OFTEN FACE UNEMPLOYMENT**

  . . . graduates in the 18 to 24 year old group without vocational training have an unemployment rate of more than 24%, while those graduates with vocational training are unemployed at the rate of 5.2%.

  Source: Dr. Robert M. Worthington; remarks before the Regional Industrial Development Corporation, St. Louis, Missouri, Oct. 13, 1971.

- **BLACKS ESPECIALLY FACE UNEMPLOYMENT**

  . . . the ratio of black to white jobless rates is 1.8 to 1.

  Source: U.S. Dept. of Labor, Bureau of Labor Statistics.

- **VETERANS OFTEN FACE UNEMPLOYMENT**

  . . . at the end of 1971, the unemployment rate of 5.2 million Vietnam veterans reached 8.2%.

  Source: *Time* (Dec. 27, 1971, p. 57).

Therefore We need CAREER EDUCATION for all students to reduce the gap between unfilled jobs and unemployed persons.

SOURCES OF THE DATA

In developihg this publication, pertinent data was examined from the following agencies:

1. Department of Health, Education and Welfare
2. U.S. Office of Education
   A. National Center for Educational Statistics
   B. Bureau of Adult, Vocational and Technical Education
3. National Education Association
4. Department of Labor; Bureau of Labor Statistics
5. Department of Defense

Responsible spokesmen of the above agencies as well as authoritative printed sources of all kinds were first included in an unpublished compilation of such data in January of 1972 entitled "Pertinent Facts and Figures", which was prepared by the staff of the National Advisory Council on Vocational Education for the use of the council's members. That unpublished paper included hundreds of statistics which were carefully screened to discover the most pertinent data for use in this publication.

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Special Paper Series edited by Edwin G. York, Coordinator Occupational Research Development Resource Centers

PLACEMENT: THE ULTIMATE TEST OF A SCHOOL'S COMMITMENT TO ITS STUDENTS

Placement: The Ultimate Test of a School's Commitment to Its Students: A Brief Explanation of the Job Placement Program

SPECIAL PAPER

APRIL, 1972

by
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* * *

1. THE PLACEMENT COMMITMENT

A commitment to placement of one hundred percent of all exiting students—whether they exit into employment or into continuing education—is an important and necessary element of that current revitalization of all of American education called "Career Education." Both logically and strategically, Career Education must involve the local school in timely and effective placement services.

The centrality of this commitment for Career Education was emphasized by U.S. Commissioner of Education Sidney P. Marland, Jr., in his recent speech "Career Education Now":

> "I propose that a universal goal of American education, starting now, be this: that every young person completing our school program at grade 12 be ready to enter higher education or to enter useful and rewarding employment."

Guidance personnel have been largely successful in the area of college placement. In fact, in many communities, guidance personnel have come to think of their placement responsibilities almost entirely in terms of college placement.

Successful job placement services, especially into "useful and rewarding employment", are clearly much rarer than college placement services. Moreover, the job placement which has been done has often been unrelated to whatever occupational preparation the student has received. This situation is further aggravated by the complete lack of skill training offered to a very large number of students.

Any school engaged in a full Career Education effort—*preparing* students for continuing education and/or employment—has a responsibility to *place* students in jobs consistent with their preparation. As an integral part of the Career Education program, job placement is one of several areas of contact with employers; others include cooperative programs and extensive use of business and industry for field trips, speaker programs, and other resources. Here job placement makes use of, and adds to, the wide range of community contacts required for successful Career Education.

Effective job placement over an extended period is actually only possible in the Career Education setting through the preparation of students to get and hold jobs and the greater extent of school employer contact. The guidance counselor in the traditional school setting, whatever his good intentions, lacks the advantages of the entire educational system's commitment to Career Education, and by implication, the total placement of all exiting students, as well as the intensified interaction of school and employer.

In summary, all schools have a responsibility for job placement. This necessary commitment is explicitly formulated in the literature of Career Education. Job placement in the Career Education setting is facilitated through the greater occupational preparation of students, and the increased articulation of services and contacts between teachers, guidance staff, and employers.

2. A HISTORY OF JOB PLACEMENT

There has always been some type of job placement in the schools through limited contacts maintained by vocational skills teachers, unusually motivated academic teachers, and some guidance counselors. For guidance staff—the most logical job placement program operators—to be actively committed to job placement and successfully engaged in it as part of their duties, the educational system must place a high priority upon successful job placement, and make counselors accountable for their actions. Such a priority and such accountability is a very recent development.

In a 1968 survey of New Jersey counselors, conducted by a subcommittee on guidance for the *Master Plan for Vocational Education in New Jersey Through 1980*, it was found that a majority of counselors felt that:

1. Vocational guidance has a wide-spread low priority in school guidance programs in New Jersey.
2. Counselor training is deficient in preparing counselors for vocational guidance.
3. All prospective counselors should be trained in vocational guidance.
4. In-service courses in vocational guidance should be made easily available throughout the state.

The Vocational Education Amendments of 1968 gave a tremendous impetus to job placement, interpreting it as a form of vocational guidance. In this legislation, Section 143.2C covered "programs or projects for intensive occupational guidance and counseling during the last years of school and for initial job placement" and Section 122.6 referred to disadvantaged and handicapped persons, and allowed use of funds for "vocational guidance and counseling designed to aid persons enumerated in paragraphs (1) through (4) of this subsection in the selection of, and preparation for, employment in all vocational areas."

With the support of federal funds available under these sections, the number of job placement programs in New Jersey has grown from five in 1968-69 to twenty in 1971-72. Fifty percent of these current programs placed a monthly average of twenty-four students in employment during the period July-December, 1971. These students averaged a total earning of $3,043 per month during this period.

Further support for job placement came in the recommendations of the Third Report of the National Advisory Council on Vocational Education. Recommendation 1.a of the Council was as follows:

> "*Every secondary school should be an employment agency.*
>
> "For many years, universities and colleges have operated employment offices through which graduating seniors and prospective employers conduct negotiations about jobs. In a handful of comprehensive schools, and in many vocational schools, a similar employment service is now conducted for graduating seniors. This practice must become universal. It must become a priority national objective that schools in disadvantaged neighborhoods establish employment offices at once and accept a responsibility for removing barriers to the employment of their graduates."

Finally, proponents of Career Education have stressed the fundamental importance of effective job placement to the entire Career Education effort.

3. THE OBJECTIVES OF A JOB PLACEMENT PROGRAM

Here are nine realistic goals for job placement programs:

- To strengthen school guidance and counseling through a more sequential program of placement and vocational counseling which is appropriate for all students.
- To develop student career knowledge that may be helpful in making vocational program choices while still in high school and/or graduation.
- To fill curriculum gaps experienced particularly by those students who are not goal-oriented as well as goal-oriented students who may need or seek further help so that they may attain a higher degree of self-realization.
- To motivate students to attain their full potential by providing a climate for developing and testing attitudes, values, abilities, interests and aspirations.
- To expand career information and opportunities for all students.
- To develop employment prospects for the physically, emotionally and mentally handicapped students so that their school experiences are more in tune with their individual needs.
- To improve lines of communication among counselors, teachers, and vocational and work-study program coordinators.
- To improve public relations and expand coordination with business and community.
- To provide job experiences as an integral phase of the curriculum to help students enjoy greater educational relevancy.

To discover and assist non-goal oriented students is especially important. The Job Placement Coordinator must concentrate his efforts upon those students *not* being served by other programs, such as cooperative education, an important component of the vocational orientation of an increasing number of high school students. He has a wide responsibility for all students, but has a particular concern for those students not entering further education, not being served by vocational skills programs, and without occupational goals or plans.

Clearly, this position requires coordination and cooperation with all agencies involved in job development and employment placement, such as the Division of Employment Security of the Department of Labor. The Job Placement Coordinator should not compete with other agencies. He should pool all types of resources with other organizations to best serve the various client populations. Moreover, the Job Placement Coordinator has a special interest in part-time employment for non-goal oriented students, when that need is not directly met elsewhere.

4. TYPICAL ACTIVITIES IN A JOB PLACEMENT PROGRAM

In considering placement services, each school district will wish to set up its own priorities and sequence for the development of appropriate activities, such as those listed below:

1. Select an advisory council
2. Conduct a survey of local occupational opportunities
3. Initiate cooperation with community agencies
4. Publicize the job placement program
5. Organize occupational information
6. Organize a career exploration club
7. Counsel and prepare students for meeting with employers
8. Involvement of students in setting up and operating a job placement service.

9. Cooperate with employers
10. Follow-up of student referrals to employers
11. Evaluation of placement services
12. Cooperate with teachers and counselors
13. Forms and record keeping
14. Use of vocational tests and appraisal instruments as an aid in relating the student's abilities and interests to emerging vocational identity.

The key activity, of course, is the placement of students in employment, particularly the placement of non-goal oriented students in part-time employment while in school. Such part-time employment should be part of the curriculum, according to the Third Report of the National Advisory Council on Vocational Education:

> "A good way to teach employability where it is not an integral part of every day life, is through employment. Every school with students who are not learning desirable employment habits at home should, to the extent the labor market allows, make part-time employment a regular part of the curriculum."

5. THE ROLE OF THE PLACEMENT COORDINATOR

The duties of the Job Placement Coordinator are as follows:

- Reports to the director of the career resource center, director of pupil personnel services, director of guidance or school principal—depending upon the particular district's organizational structure.
- Cooperates with the local state employment service in developing and utilizing employer contacts.
- Visits local and county industrial commissions and planning boards.
- Makes personal visits to local employers to determine employment needs and to evaluate employment sites.
- Surveys vocational training opportunities, including apprenticeships, manpower training centers, community colleges, business and trade schools, adult education programs, business sponsored education and training opportunities, and apprenticeship programs.
- Develops leads regarding opportunities for the handicapped, minorities and people representing special needs.
- Maintains an up-to-date directory of jobs for all levels of ability and interests (including handicapped), for both full-time and part-time jobs.
- Maintains a record of placement including student and employer comments regarding the value of the job experience.
- Coordinates all activities with career and other interested teachers.
- Assists in evaluations.
- Makes surveys, collects data and prepares directories, catalogues, reports of available materials, services and resources.

An individual holding the position of a Job Placement Coordinator should have related experience in business and industry, or vocational education, or some other type of personnel work. A minimum entry requirement is a bachelor's degree in elementary or secondary education. Certification in pupil personnel services is the Placement Coordinator's ultimate aim. Certification may also be gained through the meeting of requirements for the position of the Coordinator of Industrial Education.

The Job Placement Coordinator works full-time for a full twelve months. His schedule should be flexible so that he may spend much of his time in the field performing job development tasks such as meetings with students on the job, presentations before service clubs, meetings with community agencies, and visits to employers.

In the school the Placement Coordinator interviews students, and provides orientation and related information pertinent to the objectives of the job placement service. Coordination with teaching staff, counselors, vocational program coordinators, and community agencies is essential.

The Placement Coordinator should develop with the administration the schedule of hours, vacations, etc. Each employment area and/or business area of the state has peak employment periods of the year and special hours employers prefer to meet with the Coordinator.

Summer and vacation times may be the busiest periods for him since this is when most jobs are available to students. The Coordinator's hourly and yearly schedules do not follow those of the regular teaching and counseling staff. Participation in staff, guidance, vocational staff meetings and other school meetings pertinent to his work is required. It is important that the Placement Coordinator not be involved in any after-school or other program assignments that would interfere with job placement service activities.

The Placement Coordinator student-load should not exceed 200 students to effectively carry out all aspects of the position. While all students may benefit through job experiences, the basic premise upon which the service is established is that students who are not goal-oriented will be provided first priority over students whose career patterns are more organized.

The Job Placement Coordinator will report to his superior on a monthly or quarterly basis with statistical information reflecting a cost/benefit ratio. At the same time, his superior would be expected to confer with him on how the program's objectives are being met and if a re-direction in priorities is necessary. In other words, this reportability pattern copes with the problem of continuing or modifying the established objectives.

6. SCHOOL-INDUSTRY COOPERATION

Essential to the effectiveness of the job placement program is the maintenance of good relations and communications with employers. To best maintain these good relations, the Job Placement Coordinator should:

- Develop guidelines concerning procedures for selection, school regulations, labor supervision, and responsibilities relative to employment of students in part-time and full-time jobs.
- Record all necessary information pertaining to job requests from employers.
- Refer interested students to job openings.
- Assist students where necessary in keeping appointments.

- Inform prospective employers regarding students who will be graduating or leaving school and are eligible for employment.
- Invite employers to use school facilities when appropriate or to observe prospective employees engaged in school tasks.
- Cooperate with the employers in the development of good attitudes towards work.
- Encourage employers to make placement program and curriculum recommendations.
- Keep abreast of all changes in local, state and national labor laws.
- Review with employers: wages, working conditions, work schedules, and other pertinent aspects of the jobs.

All communication from employers regarding job opportunities should be given immediate attention and recorded and kept on file. Each employment request should be discussed with those students who show interest. Whenever possible, more than one applicant should be referred for each opening so that the final choice rests with the employer. In some cases, employers might be invited to use the school for interviewing purposes.

7. STEPS IN INITIATING A JOB PLACEMENT PROGRAM IN A LOCAL SCHOOL DISTRICT

Districts contemplating establishment of a job placement program should refer to the Division of Vocational Education's publication *Job Placement: A Guidebook For Counselors* for a detailed description of implementation methods.

Briefly, the three phases in the establishment of a program are as follows:

I) To create interest and work for action in the establishment of a Job Placement Service;

II) An in-depth study of the need, acceptance and steps for implementation of the Job Placement Service, conducted by an Ad Hoc Committee on Job Placement Services;

III) To inaugurate the plan set up by the Ad Hoc Committee on Job Placement Services.

Activities within the first phase might include a thorough analysis of present school operations related to a possible job placement program, such as:

- program enrollments
- program quality
- present placement activities
- drop-out rate
- congruity between student expectations and abilities, and employment
- a survey of employer attitudes
- the development of a tentative job placement program plan and budget.

In the third phase, the job placement program plan is implemented, evaluated and modified.

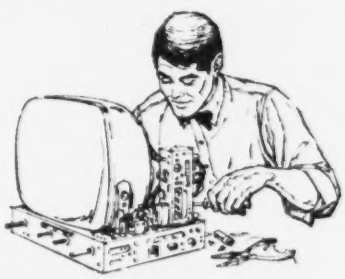
8. EVALUATING A JOB PLACEMENT PROGRAM

Evidence of the effectiveness of a program is necessary to the justification for continuation or expansion. Remember these three basic functions: first, providing exploratory part-time job experiences while the student is still in high school and post high school vocational programs; second, offering needed help to dropouts and non-goal oriented students in finding appropriate "next step" situations; and third, aiding graduates in locating meaningful jobs and related education and training opportunities.

Questions regarding the contributions of the program to the progress of involved students must be answered. How does the program affect student behavior? Does attendance improve? Do grades go up? Do student efforts at school and on the job increase? Are more students identifying with sound career goals? Is community cooperation improving? Are teachers up-dating instuction? Are employers satisfied? These and many other questions must be answered.

Program appraisal should involve students, employers, teachers, counselors, administrators, parents, and curriculum committee. The Job Placement Coordinator should develop necessary forms, procedures and techniques for data collection, interpretation and reporting. He should keep a log of activities, including daily appointments, contracts, survey information, referrals and other information pertinent to the service.

Findings may be used for the revision of curriculum, in-service training, and the modification of the placement program itself.



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7th, 8th, AND 9th GRADE CAREER EXPLORATION

7th, 8th, and 9th Grade Career Exploration: The Shape of Career Exploration Programs Designed for Young Teens.

SPECIAL PAPER May 1972

by
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Bureau of Occupational Research Development — Division of Vocational Education

CONTENTS

1. In the 7th, 8th and 9th Grades, the Time Is Right for Career Exploration.
2. Attuning the Career Exploration Program to This Special Time.
3. Basic Concerns.
4. A Planned but Flexible Approach.
5. Promising Program Components.
6. Improving the Career Exploration Program.

* * *

1. In the 7th, 8th and 9th Grades, the Time Is Right for Career Exploration.

More and more studies point up the significance of decisions made during the middle school years that will have a lasting impact on an individual's life-long career style.

A foundation already should have been laid during the pre-school through sixth grade stage. The student should have gained a readiness to pit his individual capabilities against the environment and to manipulate certain aspects of that environment to meet his personal needs and desires. He should have had opportunities for self-discovery because without comprehensive experiences leading to identification of his abilities and interests he will be ill-equipped to build and refine his decisions.

In the seventh, eighth and ninth grades the student uses his basic sense of personal individuality and potential developed in the earlier grades for getting involved in many new experiences. Curious and full of energy, he is ready by the seventh grade for a wide variety of action-oriented activities through which he can explore his capabilities in coping with new materials, situations, equipment and technical, social and economic processes. He is looking for challenges that he can interact with and conquests he can make. He enjoys such rewarding experiences as these: making things by which he can demonstrate his talents; visiting new places where interesting people do constructive things; meeting new friends who enjoy doing some of the things he does; competing successfully with his peers; and, earning money in a part time job.

It is alarming, however, that great number of students in the seventh, eighth and ninth grades find little value or interest in the school experience. This lack of motivation constitutes a handicap to the individual for career exploration activities. All possible assistance must be provided for such under motivated people as well as those better motivated to participate in career oriented learning opportunities.

2. Attuning the Career Exploration Program to This Special Time.

The characteristics of students will vary greatly as to vocational potential, energy, imagination, creativity and thoroughness. However, clearly defined objectives for the career development of students in this age group are needed to firmly anchor a program with realistic expectations.

By the end of grade nine, each student should have attained the following:

a. Be able to make realistic judgement of his own capabilities in terms of:

- intelligence
- attitude
- aptitudes
- strengths

b. Be able to relate his strengths and weaknesses to "next step" employment and/or education requirements in terms of:

- career interests
- general intelligence
- aptitudes
- work and school attributes
- personal attributes

c. Engages in developing a technique for self assessment relative to career decision making, including such elements as:

- who to talk with
- value and use of vocational and educational tests and appraisal instruments
- exploratory experience that would be valuable
- strengths and weaknesses
- economic and social concerns
- educational prospects
- sources of career information

Students enrolled in comprehensive career exploration programs should show measurable progress as follows:

- Decrease drop-out rate
- Increase ability for the selection of goal-oriented high school programs
  - planning for continued education in vocational/technical or college programs
  - planning to enter employment upon graduation from high school
- Improve school attendance
- Improve school performance and behavior

3. Basic Concerns

A number of basic concerns should control the development of actual programs for career exploration. To start with, the programs should be attuned to the needs of *all* students, both boys and girls. Also, the program developed should capitalize on the elementary level Career Education experiences and contribute as much as possible to "next step" opportunities in the middle and/or high school Career Education program.

In terms of inclusiveness of the range of occupations, all occupational areas, rather than one or two areas for boys and for girls, should be involved during the three year block of time. Short-term explorations of broad occupational families should be used to complement subject area skills.

Action and involvement should be emphasized. Student abilities, represented in hobbies and reading interests, should be used. The career exploratory experiences should engage students in activities involving their full range of aptitudes such as spatial, mechanical, verbal, mathematical, and mechanical reasoning.

The learning context should be a human one. Class activities should be organized to provide opportunity for growth in leadership, social development, personal responsibility and peer relations along with the intensive awareness of economic, social and technological developments.

Realism should be sought. It would be helpful to simulate the job site environment and working relations and conditions in various ways, such as models, exhibits, or locally produced audio-visuals depicting actual on-site occupational operations.

Team-teaching is a suitable instructional pattern for incorporating the many persons needed for career exploration programs. Teamed up with the teacher would be: leaders from the community; industry; business men and workers; educators; high school vocational teachers and students; and teachers and students in post-secondary programs.

Current information about community resouces is important. A major task will be to set up procedures for keeping up to date regarding local resources for career exploration in the community. Student-conducted community occupational surveys can double in usefulness.

With these basic concerns in mind it is now possible to sketch a variety of career exploration programs that may permit creative combinations for this three year period of time.

4. A Planned But Flexible Approach

A cooperative effort involving the students, the school and the community is needed in each district because no school system can develop a plan for career exploration that will exactly suit the students, staff, community and resources of another school system.

These minimal steps should be included in the planning activity for career exploration programs:

(1) establish a philosophy of Career Education reflecting the total nursery through adult Career Education plan;

(2) develop goals and objectives pertinent to stages including:

- elementary stage
- middle – junior high stage
- high school stage

(3) design alternative programs;

(4) select the best program;

(5) determine the means of evaluation and feedback;

(6) implement the program;

(7) evaluate the program;

(8) make modifications of the program on the basis of the evaluation.

Flexibility and variety are important in planning and operating career exploration programs for grades seven through nine. Effectiveness must be measured, in part, in terms of individual students who vary so much in their characteristics. Just as they differ widely in communication and computational skills, students are not all at the same point of maturation in career development.

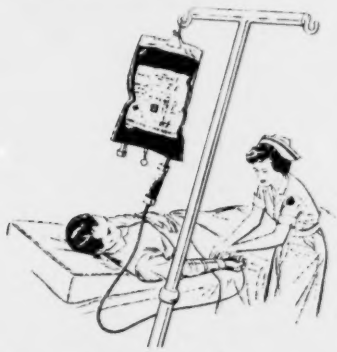
Although no single approach is offered as the "only" or "best" way for career exploration, a body of experience has developed and is proposed below for your consideration in improving the Career Education climate in your school district.

5. Promising Program Components

Below are described eight program components which have been used with success in existing career exploration programs for grades seven through nine. The descriptions are necessarily brief; only the most significant facets are highlighted. More detailed information can be made available on request.

Programs such as Employment Orientation and WECEP, expressly for the disadvantaged and handicapped, now funded under the Vocational Education Act of 1968, are important components of the Career Education package in many school districts. These programs are not presented here since they are given adequate coverage in other publications.

Unless noted to the contrary, all program components listed are for grades seven, eight and nine.



Program 1: *Career Club*

This is not of the usual "hobby" variety. Students do these things: go on "mini" trips; tote cameras, audio tapes and video recorders; role play jobs; set up and operate businesses "Junior Achievement style;" conduct student, business and community career-oriented surveys; visit with goal oriented students in high school and community colleges programs; and produce their own "career newsletter". Occupational areas to be explored are chosen by the members of the club.

Program 2: *Summer Career Exploration*

Summer Career Exlporation programs have been successful for a variety of student populations. "Student" instructors working with the teachers are invaluable in this approach through "outreach" services since living in the community make communications easy. The activities are drawn from some of the same areas listed above under Career Exploration Club. In addition to exploratory experiences in specialized vocational/technical areas, consideration of social, cultural and recreational needs are also significant in this articulation program. Similar programs are planned using a community college base.

Program 3: *The Video-Recorder in Career Counseling*

Several schools are presently experimenting with this technique. How an individual perceives himself and establishes an "operational" self image is the outgrowth of a multiplicity of experiences and interactions. The opportunity for a student to "see and hear" himself for purposes of expanding his self-identity, rarely a part of the counseling setting, can be highly effective in working with students.

Program 4: *Part-Time Job Placement*

Boys and girls in grades 7-9 are eligible for numerous part-time jobs in parks, homes, farms and schools. Such job experiences – with related counseling and remedial instruction – represent an invaluable aid to students who are not enjoying a very high level of success in the traditional school setting. Working with adults in a different environment, and learning how important it is to follow instructions and how school and work are interrelated may awaken the student to his career "responsibilities".

Program 5: *Introduction to Vocations* – **Grades 8-9**

This program is designed to provide a broad base of occupational awareness for students at the junior high or middle school level, typically in the eighth or ninth grades. Some school systems are experimenting with this approach at grade 7. Exploratory, manipulative, classroom, ship and laboratory experiences – offered in a wide range of occupational areas and combined with the resources of business and industry – assist youth in the development of more realistic career plans.

Students are scheduled for a minimum of five cycles, one daily period throughout the year, in such occupational areas as Health, Manufacturing, Business, Marketing and Distribution and a Career Guidance Unit: Know-Yourself.

Program 6: *Short Term Intensive Entry Skill Preparation*

Some salable skills can be developed by the student who plans to leave school during this time or at the end of grade nine. Counselors and teachers cooperatively identify such students and assist each individual in determining areas for exploration followed by training for specific job entry. The program succeeds best where good school-industry relations exist and industry can provide specific skill training while the school complements the training by offering related academic skills. Job and continuing education placement are critical in this program.

Program 7: *Career Resource Center*

A critical aspect significant to the successful functioning of the individual programs and services making up the grade 7-9 Career Education package discussed above, is the process for pulling all facets together.

In the New Jersey Career Education projects at least two key staff members make up a Career Resource Center: an Audio-Visual Media Coordinator and a School-Industry-Cooperation Coordinator. Responding to the needs of Career Education program teachers, the Career Resource

Center to a large measure is responsible for carrying out the fullest meaning of the concept of Career Education.

Specifically the duties of the Career Resource Center team may be included under the following:

a. Coordinate the efforts of the respective facets of the Career Education Model. (I.V., Placement, Guidance and Counseling, Career Club, other 7-9 teachers.)

b. Provide multi-media resources and services to teachers in order to enhance the respective program and subject areas.

c. Expedite exchange, reduce duplication, promote efficiency in total program effort.

d. Identify, develop and maintain continuity of individual experiences of students in respect to the career development process.

e. Identify a core of knowledge pertinent to in-service education.

f. Place resources of school, industry and community in full operation relative to their respective needs.

Some examples may clarify how these services and resources, when pooled to create a Career Resource Center, can play a vital role in expanding the effectiveness of all career-oriented activities.

Typical Problem One: Students have difficulty in participating in a group project situation in the Career Exploration Club.

Action of the Career Resource Center: The club advisor places his request with the Career Resource Center and arrangements are made to have the group session video-taped. Playback will enhance the opportunity for better understanding of group relations.

Typical Problem Two: Introduction to Vocations teacher would like to acquaint students with certain occupational opportunities in the business and industrial community.

Action of the Career Resource Center: Introduction to Vocations teacher makes request for speakers, visits, materials, and films. School-Industry Relations and Audio-Visual staff members in cooperation with Introduction to Vocations teacher develop required contacts, materials and information for presentation to students.

Typical Problem Three: Science teacher, eighth grade, wishes to arrange for student trips into the community relative to a "science in your community" project.

Action of the Career Resource Center: Listings are found in directories developed by Career Resource Center team including necessary related information. New information and/or materials, resources, may be developed by Career Resource Center personnel. Further, the audio-visual team may photograph students on trips which then may be used for follow-up discussion.

Typical Problem Four: Teacher in-service program regarding services of the Career Resource Center.

Action of the Career Resource Center: Career Resource Center staff arranges for initial orientation relative to services with subsequent in-service programs based on needs analysis surveys of students, teachers, the community, and local business and industry.

Typical Problem Five: Part-time Job Placement: related information.

Action of the Career Resource Center: Students may be video-taped at work stations; playback would provide setting for discussion pertinent to foods, industrial, business or whatever occupational area is involved. School-industry relations staff surveys new opportunities regarding development of further resources.

The number of possibilities are limited only by the creativeness of the school and the degree of community involvement in the Career Education program.

Planned for operation, later this year, as a part of the Career Resource Center, is the VIEW program and Computer Information Services.

Program 8: *Special Career Resource Center Models*

Several school districts have started a number of variations of the Career Resource Center approach. In one instance, five Cooperative Education Coordinators scheduled their time throughout the day so that at least one staff person was available to students throughout the greater part of the school day. Services provided to the students included:

- Career Fair
- Job Placement
- Job Clinic, featuring:
  - How to get and hold a job
  - Labor Laws
  - Training program information
- Occupational information and job counseling
- Newsletter covering activities and services

6. Improving the Career Exploration Program

Research, observation, counseling and testing will permit the gaining of insight as to the career development of the students involved, the effectiveness of the curriculum for career exploration, other alternatives not yet sufficiently tried, and "next step" possibilities for program improvement.

Evaluation of the effectiveness of the career exploration program would involve the use of the behavioral objectives (see section two above) for both individuals and groups.

Both teachers and students can contribute to program assessment. The guidance counselor, because he plays a unique role in coordinating personal and instructional resources, must take an active part in the assessment process.

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PERIODICALS

HELPFUL TO CAREER EDUCATION

PERIODICAL HOLDINGS: The collection of periodicals being received at the New Jersey Occupational Research and Development Resource Center at Edison

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1. INTRODUCTION

Scope

The Scope of the periodical collection at the Edison Resource Center is vocational-technical education and closely related fields such as business, etc., including international and national periodicals. The present collection begins with the first issue of each periodical in 1971 to date.

Services

Individual requests for photocopies of articles by phone or mail provided at the cost of 10c per page. Inter-library loan requests by phone or mail provided free of charge (within a reasonable limit).

Location of Collection

The periodical collection at the Edison Resource Center is arranged alphabetically by title on the journal shelves upon entering the center.

How To Find Information In These Periodicals

The information included in the periodicals available at the Edison Resource Center can be found through three approaches. Two approaches are two professional indexes, the *Current Index to Journals in Education* (CIJE) (*) and the *Education Index* (+) noted on the following list of periodicals. A third approach is using a key word index *Current Research and Discussion in Vocational-Technical Education* published by the Resource Center ten times a year. If you wish to be placed on the mailing list please notify the Trenton or Edison Resource Centers.

Arrangement of the Following Lists

The first list is alphabetical by title: it includes abbreviation of periodical title, title, and whether the periodical is indexed in Current Index to Journals in Education (*) or Education Index (+). The second list is under subject headings relating to vocational-technical education. Refer to the first list for complete title of the periodical.

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2. Alphabetical Title List

Abbreviation	*Periodical Titles*	*Indexed In CIJE (*)*	*Indexed In Educ. Index (+)*
A			
AEDS J	AEDS Journal	*	
AEDS	AEDS Monitor		+
ASCD Yrbk	ASCD Yearbook	*	+
ASPBAE	ASPBAE	*	
AV Commun Rev	AV Communication Review	*	+
AIM	Abstracts of Instructional Material		
ARM	Abstracts of Research and Related Materials		
ACAD Therapy	Academic Therapy	*	+
Admin Notebk	Administrators Notebook	*	
Adult Ed	Adult Education	*	+
Adult Ed (Fin)	Adult Education (Finland)	*	
Adult Ed (Lon)	Adult Education (London)		
Adult Ed (Tal)	Adult Education (Tallahassee)		
Adult Lead	Adult Leadership	*	+
Ag Ed Mag	Agricultural Education Mag	*	+
Ag Res	Agricultural Research		
Ag Sci Rev	Agricultural Science Review		
Alberta J Ed Res	Alberta J of Education Research	*	
Allied Med Ed	Allied Medical Education Newsletter		
Am Assoc Coll Teach Ed	American Assoc of Colleges for Teacher Education	*	+
Am Behav Sci	American Behavioral Scientist	*	
Am Bk Pub Rec	American Book Publishing Rec	*	+
Am Counc Ind Arts Teach Ed Yrbk	American Council on Industrial Arts Teacher Education Yearbook		
Am Doc	American Documentation		
Am Ed	American Education	*	+
Am Ed Res J	American Educational Research J	*	+
Am Forest	American Forest		
Am Fruit G	American Fruit Grower		
Am J Men Def	Am J of Mental Deficiency	*	+
Am J Nurs	American Journal of Nursing		
Am J	Am J of Occupational Therapy	*	
Am Sch & Univ	American School and University	*	+
Am Sch Bd J	American School Board		
Am Sci	American Scientist		
Am Veg G	American Vegetable Grower		
Am Voc J	American Vocational Journal	*	+
Architect Des	Architectural Design	*	
Area Trends Empl & UnEmpl	Area Trends in Employment and Unemployment		
Arith Teach	Arithmetic Teacher	*	+
Assoc Stud Teach: Yrbk	Assoc for Stud Teaching: Yrbk		

Abbreviation	Periodical Titles	Indexed In CIJE (*)	Indexed In Educ Index (+)
Assoc Teach Tech Inst	Assoc of Teachers in Technical Institutions (London)		
AV Instr	Audiovisual Instruction	*	+
AV Lang J	Audiovisual Language Journal	*	
AV Media	Audiovisual Media	*	+
Aust Home J	Australian Home Journal		
Aust J Adult Ed	Australian J of Adult Ed	*	
Automat Ed Lett	Automated Education Letter		
Aviat Mech	Aviation Mechanics Bulletin		
B			
BTA J	BTA Journal		
BACIE J	BACIE Journal	*	
BACIE NEWS	BACIE News		
Bal Sheet	Balance Sheet	*	
Barron's Wkly	Barron's Weekly		
Bimon List Pub Mot Pict	Bimonthly List of Publications and Motion Pictures		
Biochemistry	Biochemistry		
Brit J Ed Psychol	British Journal of Education Psychology	*	+
Brit J Ed Stud	British Journal of Education Studies	*	+
Build Int	Build International	*	
Build Syst Design	Building Systems Design		
Bull Lab Statist	Bulletin of Labor Statistics		
Bur Cen Cat	Bureau of Census Catalog		
Bus Ed Forum	Business Education Forum	*	+
Bus Statist	Business Statistics		
Bus Wk	Business Week		
C			
CAPS	CAPS-Capsule		
CBI Ed & Train Bull	CBI Education & Training Bulletin		
CIRF Abstr	CIRF Abstracts		
Calif J Ed Res	Calif J Of Education Research	*	+
Can Consum	Canadian Consumer		
Can Dept Man Immigr N T	Canadian Dept of Manpower and Immigration New Titles		
Can Govt Pub	Canadian Government Publications		
Can Train Methods	Canadian Training Methods		
Car & Driver	Car and Driver		
Car Dev N	Career Development News		
Center Forum	Center Forum		
Centergram	Centergram		
Changing Time	The Changing Times		
Chem Wk	Chemical Week		
Child Develop	Child Development	*	+
Childh Ed	Childhood Education	*	+
Children	Children	*	+
Civil Rights Dig	Civil Rights Digest	*	
Clear House	Clearing House	*	+
Coll & Res Lib	College and Research Libraries	*	+
Coll Bd Rev	College Board Review	*	
Coll Manage	College Management		+
Coll Stud Per Abstr	College Student Personnel Abstracts		
Com Ed J	Community Education Journal		
Compact	Compact	*	+
Comp Ed	Comparative Education	*	+
Comp Ed Rev	Comparative Education Review	*	+
Computerworld	Computerworld		
Congr Q Wkly Rep	Congressional Q Weekly Report		
Congr Rec	Congressional Record Proceedings and Debates		
Constr Prod Technol	Construction Products and and Technology	*	
Consum Aff Bull	Consumer Affairs Bulletin		
Consum Bull	Consumer Bulletin		
Consum N	Consumer News		
Consum Rep	Consumer Reports		
Consum Dig	Consumers Digest		
Contemp Ed	Contemporary Education	*	+
Contin Ed	Continuing Education	*	
Contin Ed Adult	Continuing Education for Adults		
Contin Learn	Continuous Learning	*	
Convergence	Convergence	*	+
Counsel Ed & Superv	Counselor Education and Supervision	*	+
Counsel Infor Serv	Counselor's Information Service		
Cum List Organ	Cumulative List of Organizations		
CIJE	Current Index to Journals in Education		
Cur Pop Rep	Current Population Reports		
Cur Wage Develop	Current Wage Developments		
D			
DAEDALUS	DAEDALUS	*	
DECA	DECA Distributor		
Datamation	Datamation		
Delta Pi Ep J	Delta Pi Epsilon Journal	*	
Dir Consum Protec Prog e	Directory of Consumer Protection Programs e		
Display World	Display World		
Diss Abstr Int	Dissertation Abstracts International		
E			
EBTA J	EBTA Journal		
ERIC Clear. Adult Ed.	ERIC Clearinghouse on Adult Education		
ERIC News +	ERIC News Plus		
EVOCED	EVOCED		
Econ Develop	Economic Development		
Econ Ed Bull	Economic Education Bulletin		
Econ Oppor Rep	Economic Opportunity Report		
Ed	Education		+
Ed Train Ment Retard	Education and Training of the Mentally Retarded	*	+
Ed Urban Soc	Education and Urban Society		
Ed Can	Education Canada	*	+
Ed Daily	Education Daily		
Ed Dig	Education Digest	*	+
Ed Recaps	Education Recaps		
Ed Train Mark Rep	Education Training Market Report		
Ed U.S.A.	Education, U.S.A.		
Ed Admin Abstr	Educational Administration Abstracts		
Ed Admin Q	Education Administration Quarterly	*	+

Abbreviation	Periodical Titles	Indexed In CIJE (*)	Indexed In Educ Index (+)
Ed & Psychol M	Educational and Psychological Measurements	*	+
Ed Develp	Educational Development		
Ed Equip	Educational Equipment		
Ed Equip Mater	Educational Equipment and Materials		
Ed Forum	Educational Forum	*	+
Ed Horiz	Educational Horizons	*	+
Ed Lead	Educational Leadership	*	+
Ed Media Mag	Educational Media Magazine		
Ed Prod Rep	Educational Product Report	*	+
Ed Rec	Educational Record	*	+
Ed Res	Educational Research	*	+
Ed Res	Educational Researcher		
Ed Res Tec	Educational Resources and Techniques	*	
Ed Scr AV G	Educational Screen and Audiovisual Guide	*	+
Ed Technol	Educational Technology	*	+
Ed TV	Educational Television	*	
Ed TV Int	Educational Television International	*	+
Elec Farm	Electricity on the Farm		
Elem Sch Guid & Counsel	Elementary School Guidance and Counseling	*	+
Elem Sch J	Elementary School Journal	*	+
Empl & Earn	Employment and Earnings		
Empl Serv Rev	Employment Service Review		
Empl Situat	Employment Situation		
Eng Ed	Engineering Education		
Eng Ind Train Bd Info Pap	Engineering Industry Training Board, Information Paper		
Environ Ed	Environmental Education		
Environ Mon	Environmental Monthly		
Equal Opport	Equal Opportunities		
Eval Comment	Evaluation Comment		
Everyb Money	Everybody's Money		
Except Child	Exceptional Children	*	+
Exchange	Exchange (Office of Spec Ed)		
Exchange	The Exchange		
Exten Serv Rev	Extension Service Review	*	
F			
FAA Aviat N	FAA Aviation News		
Fam Coord	Family Coordinator, The	*	
Fam Econ Rev	Family Economics Review		
Farm J	Farm Journal		
Farm Lab	Farm Labor		
Farm Q	Farm Quarterly, The		
Farm Serv N	Farm Service News		
Farm Technol	Farm Technology		
Film Lib Q	Film Library Quarterly		
Film N	Film News		
Film W & AV W	Film World and AV World		
Florist	Florist and Nursery Exchange		
Flower & Gard	Flower and Garden		
Focus Except Child	Focus on Exceptional Children		
Focus on Guid	Focus on Guidance		
Forbes Mag	Forbes Magazine		
Forecase Home Econ	Forecast for Home Economics		+
From: AVA	From: AVA Washington Desk		
Futures	Futures		
G			
Govt Publ GB	Government Publications of Great Britain		
Grade Teach	Grade Teacher	*	+
Grant Data Q	Grant Data Quarterly		
G.B. Min Lab Train Abstr Serv	Great Britain Ministry of Labour Training Abstracts Service		
Guid J	Guidance Journal		
H			
Handbk Occup Groups	Handbook of Occupational Groups and Series of Classes		
Harvard Ed Rev	Harvard Educational Review	*	+
Hist Ed Q	History of Education Quarterly	*	+
Home Econ Res Abstr	Home Economics Research Abstracts		
House Ship Guid	Household Shipping Guide		
Hum Pot	Human Potential		
Hum Relat	Human Relations Tips & Trends		
Hum Relat Train N	Human Relations Training News	*	
I			
ILO Panorama	ILO Panorama	*	
Ill Teach	Illinois Teacher		
Ill Voc Newsletter	Illinois Vocational Newsletter		
Ill Voc Progr	Illinois Vocational Progress		
Impact Sci Soc	Impact of Science on Society	*	
Ind Lab Relat Rev	Industrial and Labor Relations Review		
IAVE	Industrial Arts and Vocational Education	*	+
Ind Can	Industrial Canada		
Ind Relat	Industrial Relations		
Ind Train Int	Industrial Training International	*	
Inform Bull	Information Bulletin		
Inform Retriev Lib Aut N	Information Retrieval and Library Automation Newsletter		
Inform Sci Abstr	Information Science Abstracts		
Instructor	Instructor	*	+
Interchange	Interchange	*	
Integ Ed	Integrated Education	*	+
Int Coop Train J	International Cooperative Training Journal		
Int Ed & Cul Exch	International Educational and Cultural Exchange		
Int J Adult Youth Ed	International Journal of Adult and Youth Education		
Int J Ed Sci	International Journal of Educational Sciences		
Int Lab Doc	International Labour Documentation		
Int Lab Rev	International Labour Review		
Int Rev Ed	International Review of Educ	*	+
J			
Jersey Schmaster	Jersey Schoolmaster		
Jets J Mag	Jets Journal Magazine		
Job Mark Eng Sci Tech	Job Market for Engineers, Scientists and Technicians		
J Am Assoc Med Col	Journal of American Association of Medical Colleges		
J Am Hosp Assoc	Journal of American Hospital Association		
J Am Pub Health Assoc	Journal of American Public Health Association		

Abbreviation	Periodical Titles	Indexed In CIJE (*)	Indexed In Educ Index (+)
J Appl Behav Sci	Journal of Applied Behavorial Science	*	+
J Appl Psychol	Journal of Applied Psychology	*	+
J Bus Comm	Journal of Business Communication		
J Bus Ed	Journal of Business Education	*	
J Comm	Journal of Communication	*	+
J Consum Affairs	Journal of Consumer Affairs		
J Coop Ed	Journal of Cooperative Education		
J Coop Exten	Journal of Cooperative Extention		
J Counsel Psychol	Journal of Counseling Psychology	*	+
J Creative Behav	Journal of Creative Behavior	*	+
J Data Manage	Journal of Data Management		
J Ed	Journal of Educational	*	+
J Ed Data Process	Journal of Educational Data Processing	*	+
J Ed Meas	Journal of Educational Measurement	*	+
J Ed Psychol	Journal of Educational Psychology	*	+
J Ed Res	Journal of Educational Research	*	+
J Empl Counsel	Journal of Employment Counseling	*	+
J Exp Ed	Journal of Experimental Education	*	+
J Exten	Journal of Extension	*	
J Home Econ	Journal of Home Economics	*	+
J Hum R	Journal of Human Resources	*	
J Ind Teach Ed	Journal of Industrial Teacher Education	*	
J Learn Disabilities	Journal of Learning Disabilities	*	+
J Lib Automat	Journal of Library Automation	*	
J Mark Res	Journal of Marketing Research		
J Mar & Fam	Journal of Marriage and the Family	*	
J Negro Ed	Journal of Negro Education	*	+
J Negro Hist	Journal of Negro History		
J Nutrit Ed	Journal of Nutrition Education		
J Pract Nurs	Journal of Practical Nursing		
J Res & Develop Ed	Journal of Research and Development in Education		
J Retail	Journal of Retailing		
J Sec Ed	Journal of Secondary Education	*	+
J Spec Ed	Journal of Special Education	*	+
J Stud Per Assoc Teach Ed	Journal of the Student Personnel Association for Teacher Education	*	
J Teach Ed	Journal of Teacher Education	*	+
J Technol	Journal of Technology		
J Am Soc Inform Sci	Journal of the American Society for Information Science		
J Nat Assoc Coll Admin Counsel	Journal of the National Association of College Admissions Counselors	*	
Jun Coll J	Junior College Journal	*	+
Jun Coll Res R	Junior College Research Review		
Just Betwn Offic Girls	Just Between Office Girls		
L			
Lab Dev Abroad	Labor Development Abroad		
Lab Ampl Gaz	Labour & Employment		
Lab Ed	Labour Education	*	
Lab Force	Labour Force		
Lab Gaz	Labour Gazette		
Lib Acqui List	Library Acquisition List New York: School of Industrial and Labor Relations-Cornell U.		
Lib J	Library Journal	*	
Lib Congr Inform Bull	Library of Congress: Information Bulletin		
Lib R Tech Serv	Library Resources & Technical Services	*	
Literacy	Literacy: a Newsletter		
M			
Man-Environ Syst	Man-Environment System	*	
Man/Soc/Technol	Man/Society/Technology	*	+
Manage Per Q	Management of Personnel Q		
Manpower	Manpower		
Manpower & Appl Psychol	Manpower & Applied Psychology		
Manpower Voc Ed Wkly	Manpower and Vocational Education Weekly		
Manpower Comm	Manpower Comments		
Man Inform Serv	Manpower Information Service		
Manpower Res Study Sum	Manpower Research Study Summary		
Manpower Tech Exch	Manpower Technical Exchange		
Mark/Comm	Marketing/Communication		
Mark Inform G	Marketing Information Guide Annotated Bibliography		
Mat Res & Stand	Materials Research & Standards		
Math Teach	Mathematics Teacher	*	+
Meas & Eval Guid	Measurement and Evaluation in Guidance	*	+
Media & Methods	Media and Methods-Exploration in Education		
Ment Retard	Mental Retardation	*	
Merrill-Palmer Q	Merrill-Palmer Quarterly of Behavior and Development		
Money Doctor	Money Doctor		
Moneysworth	Moneysworth		
Monogr Soc Res Child Deve	Monographs of the Society for Research in Child Development		
Mon Checklist State Pub	Monthly Checklist of State Publications		
Mon Labor Rev	Monthly Labor Review		
Mon List Bks Cat UN Lib	Monthly list of bks cataloged in the Library of the UN		
Mon Release Fed Civil Man Statist	Monthly Release of Federal Civilian Manpower Statistics		
Motor T	Motor Trends		
N			
NCEI Rep	NCEI Reporter		
NDEA	NDEA National Institute for Advanced Study in Teaching Disadvantaged		
NEA Res Bul	NEA Research Bulletin	*	+
NEA Res Rep	NEA Research Reports		
NJEA Review	NJEA Review	*	
NMA J	NMA Journal		
NACA J	NACA Journal	*	+
NBEA Yrbk	Nat'l Bus Educ Assoc Yrbk	*	
Nat Bus Ed Q	National Business Education Quarterly		+
Nat Soc Prog Instr	National Society for Programmed Instruction		
Nations Sch	Nation's Schools	*	+
Nature Resour	Nature and Resources		
New Hum Serv N	New Human Services Newsletter		
NJ Econ Indic	New Jersey Economic Indicators		
NJ Ed	New Jersey Education		
NJ Guid N	New Jersey Guidance News		

Abbreviation	Periodical Titles	Indexed In CIJE(*)	Indexed In Educ Index(+)
NJ Lab Mark Trends	New Jersey Labor Market Trends		
NJ Leg Index	New Jersey Legislative Index		
N Pub	New Publications		
N Tech Bks	New Technical Books		
News	News-State of New Jersey-Dept. of Labor and Industry		
Nurs Outlook	Nursing Outlook		
Nurs Res	Nursing Research		
Nutrit Today	Nutrition Today		
O			
OECD Observer	OECD Observer		
Occup Ed Bull	Occupational Education Bulletin		
Occup Ment Health Notes	Occupational Mental Health Notes		
Occup Outlook Q	Occupational Outlook Quarterly	*	
Occup Psych	Occupational Psychology		
P			
PHRA	PHRA: Poverty and Human Resources Abstracts		
PTA Mag	PTA Magazine		
Pacesetters	Pacesetters In Innovation		
Performance	Performance		
Per AMA	Personal AMA		
Per Guid J	Personnel and Guidance Journal	*	+
Per Train Manage	Personnel & Training Management		
Per J	Personnel Journal	*	
Per Manage Abstr	Personnel Management Abstracts		
Per Psych	Personnel Psychology		
Per Serv	Personnel Service		
Kappan	Phi Delta Kappan	*	+
Phys Today	Physics Today	*	
Place Serv Bull	Placement Service Bulletin		
Pop Electr	Popular Electronics		
Pop Mech	Popular Mechanics		
Pop Sci	Popular Science		
Printer's Ink	Printer's Ink		
Prog Learn Ed Technol	Programmed Learning and Educational Technology		
Prog Handicap	Programs for the Handicapped		
Pub Opin Q	Public Opinion Quarterly	*	
Pub Relat J	Public Relations Journal		
R			
Read Teach	Reading Teacher	*	+
Rehab Counsel Bull	Rehabilitation Counseling Bulletin	*	
Res Bull	Research Bulletin		
Res Ed. U.S.A.	Research in Education U.S.A.		
Res Manage	Research Management		
Rev Ed Res	Review of Educational Research	*	+
Rev Sci Instru.	Review of Scientific Instuments		
Rural Manpow Develop	Rural Manpower Developments		
S			
SBN	SBN-School Board Notes		
Sales Manage	Sales Management		
Sat Rev	Saturday Review		
Sch & Soc	School and Society	*	+
Sch Build Equip Supp	School Building Equipment and Supplies		
Sch Counsel	School Counselor		+
Sch Lib J	School Library Journal	*	
Sch Manage	School Management	*	+
Sch Prod N	School Product News		
Sch Rev	School Review	*	+
Sch Sci & Math	School Science & Mathematics	*	+
Sch Shop	School Shop	*	+
Science	Science	*	
Sci & Child	Science and Children	*	
Sci Teach	Science Teacher	*	+
Selec List Recent Add Lib-Lab Dep	Selected List of Recent Additions to Library-Labor Department		
Selec Pub AV Mater	Selected Publications and Audio-Visual Materials		
Selec US Govt Pub	Selected U.S. Government Publications		
Service	Service		
Sight Lines	Sight Lines		
Social Ed	Social Education	*	+
Sociol of Ed	Sociology of Education	*	+
Soviet Ed	Soviet Education	*	+
Spec Announ	Special Announcement		
Spec Ed	Special Education	*	
Spec Lib	Special Libraries	*	
State Ed J e	State Education Journal Index e		
State Tech Serv Newsletter	State Technical Services Newsletter	*	
Statist Rep	Statistical Reporter		
Stores Per	Stores Personnel		
Stud Ad Ed	Studies in Adult Education	*	
Supermark N	Supermarket News		
Surv Cur Bus	Survey of Current Business		
T			
Teach Coll Rec	Teachers College Record		+
Teach Guid Media Method	Teachers Guide to Media and Methods		
Teach Excep Child	Teaching Exceptional Children	*	
Teach Learn	Teaching Learning Issues		
Teach Topics	Teaching Topics		
Tech Ed	Technical Education		
Tech Ed Abstr	Technical Education Abstracts From British Sources		
Tech Ed. N	Technical Education News	*	
Tech J	Technical Journal		
Tech N Bull	Technical News Bulletin		
Tec Teach Ad N	Techniques for Teachers of Adults Newsletter		
Technol Tutor	Technology Tutor		
Times Ed Suppl	Times London Education Suppl	*	+
Tips & Topics	Tips & Topics in Home Economics		
Todays Ed	Today's Education	*	+
Todays Sec	Today's Secretary		
Train Devlop J	Training & Development Journal	*	
Train Progr	Training for Progress	*	
Train Bus Ind	Training in Business & Industry		
Train Officer	Training Officer		
Train Sch Bul	Training School Bulletin	*	+
Train Syst Ind	Training Systems in Industry		
U			
UNESCO Bull	UNESCO Bulletin for Libraries	*	
UNESCO Doc	UNESCO Documents		
US Bur Lab Statis-Cat	U.S. Bureau of Labor Statistic Catalog of Publications		

Abbreviation	*Periodical Titles*	*Indexed In CIJE (*)*	*Indexed In Educ Index (+)*
U.S. Consum	U.S. Consumer		
U.S. Dep Lab Recent Add Lib	U.S. Department of Labor-Recent Additions to the Library		
USGRDR Rep	USGRDR Report and Index		
Urban Ed	Urban Education	*	+
Urban Rev	Ubran Review		+
V			
Visual Comm Instr	Visual Communications Instruct		
Visual Ed	Visual Education		
Vital Speech	Vital Speeches of the Day		
Voc Aspect Ed	Vocational Aspects of Education		+
Voc Ed Manpower Rep	Vocational Education and Manpower Reporter		
Voc Guid Q	Vocational Guidance Quarterly	*	+
W			
Wash Voc Ed N	Washington Vocational Educational News		
Waste & Water Dig	Waste and Water Digest		
Wkly Compil Pres Doc	Weekly Compilation of Presidential Documents		
West Eur Ed	Western European Education		
What's New	What's New in Home Economics		
Wom Wear	Women's Wear Daily		
Work Study Manage Serv	Work and Study Management Services		
Y			
Youth Work	Youth and Work Newsletter		

3. SUBJECT LIST

To identify periodicals related to your subject interest check under one or more of the following categories:

General Vocational and Technical Education
Administration
Adult Education
Agricultural Education
Behavioral/Sociological/Psychological
Book Lists and Reviews
Business and Office Education
Consumer Education
Cooperative Education Programs
Curriculum Development
Distributive Education
Documentation
Education
Educational Technology
Environment
Evaluation
Facilities
Health Occupations
Home Economics
Human Resources
Industrial Arts
International
Law
Library Bulletins
Manpower Training
New Careers
Planning
Research
Special Needs
Statistics
Teacher Education
Technical Education
Technology for Children
Trade and Industrial Education
Training
Two Year Colleges
Urban and Ghetto Education
Vocational Guidance

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GENERAL VOCATIONAL AND TECHNICAL EDUCATION

Am Voc J; Centergram; Cum List Organ; EVOCED; From; AVA; Grant Data Q; Ill Voc Newsletter; Ill Voc Progr; Pub Opin Q; Voc Aspec Ed

ADMINISTRATION

Admin Notebk; Am Sch Bd J; Ed Admin Abstr; Ed Admin Q; Ed Lead; Jersey Schmaster; J Sec Ed; SBN; Sch Manage

ADULT EDUCATION
ASPBAE; Adult Ed; Adult Ed (Fin); Adult Ed (Lon); Adult Ed (Tal); Adult Lead; Australian J of Adult Ed; Contin Ed; Contin Ed Adult; Contin Learn; ERIC Clear; Adult Ed; Exten Serv Rev; Stud Ad Ed; Tec Teach; Ad N;

AGRICULTURAL EDUCATION
Ag Ed Mag; Ag Res; Ag Sci Rev; Am Forest; Am Fruit G; Am Veg G; Bimon List Pub Mot Pic; Elec Farm; Farm J; Farm Lab; Farm Q; Farm Serv N; Farm Technol; Florist; Flower & Gard; Rural Manp Develop.

BEHAVIORAL/SOCIOLOGICAL/PSYCHOLOGICAL
Acad Therapy; Am Behav Sci; Brit J Ed Stud; J Appl Behav Sci; J Appl Psychol; J Creative Behav; J Ed Psychol; Merrill-Palmer Q; Occup Psych; Per Psych

BOOK LISTS AND REVIEWS
Am Bk Pub Rec; Can Dept Man Immigr NT; Can Govt Pub; CIJE; Govt publ GB; Lib Acqui List; Lib Cong Inform Bull; Mon Checklist State Pub; Mon List Bks Cat UN lib; N Pub; N Tech Bks; Sat Rev; Selec List Add Lib-Lab Dept; Selec US Govt Pub; U.S. Dept Lab Recent Add, Lib; Wkly Compil Pres Doc;

BUSINESS AND OFFICE EDUCATION
Bal Sheet; Barr's Wkly; Bus Ed Forum; Bus Wk; Datamation; Delta Pi Ep J; EBTA J; Exchange; Forbes Mag; J Bus Comm; J Bus Ed; J Data Manage; Just Betwn Offic Girls; NBEA Yrbk; Nat Bus Ed Q; Surv Cur Bus; Todays Sec

CONSUMER EDUCATION
Aust Home J; Can Consum; Changing Time; Consum Aff Bull; Consum Bull; Consum N; Consum Rep; Consum Dig; Dir Consum Protect Prog; Econ Ed Bull; Everyb Money; Fam Econ Rev; Home Econ Res Abstr; House Shop Guid; Human Relat; Ill Teach; J Consum Affairs; Money Doctor; Moneysworth; Service; U.S. Consum

COOPERATIVE EDUCATION PROGRAMS
J Coop Ed; J Coop Exten; Work Study Manage Serv;

CURRICULUM DEVELOPMENT
ASCD Yrb; CIM

DISTRIBUTIVE EDUCATION
Deca; Display World; J Mark Res; J Retail; Manage Per Q; Mark/Comm; Mark Inform G; Per AMA; Per Train Manage; Per J; Per Manage Abstr; Per Serv; Printer's Ink; Pub Relat J; Sales Manage; Stores Per; Supermark N

DOCUMENTATION
Am Doc; Inform Sci Abstr; Int Lab Doc

EDUCATION
Am Ed; Com Ed J; Compact; Comp Ed; Comp Ed Re; Contempt Ed; DAEDALUS; Ed; Ed Train Ment Retard; Ed Urban Soc; Ed Can; Ed Daily; Ed Dig; Ed Recaps; Ed USA; Ed Forum; Ed Horiz; Ed Rec; Harvard Ed Rev; Hist Ed Q; Instructor; Interchange; Int Ed & Cul Exch; Int J Adult Youth Ed; Int Ed Sci; Int Rev Ed; J Ed; NJEA Review; Nation Sch; PTA Mag; Kappan; Sch & Soc; Sch Rev; Social Ed; Sociol of Ed; Soviet Ed; State Ed J; Times Ed Suppl; Today Ed; Voc Ed Manpower Rep; West Eur Ed;

EDUCATIONAL TECHNOLOGY
AEDS J; AEDS; AV Instr; AV Lang J; AV Media; Automat Ed Lett; BTA J; Computer-world; Ed Equip; Ed Equip Mater; Ed Media Mag; Ed Prod Rep; Ed Scr AV G; Ed Technol; Ed TV; Ed TV Int; Film Lib Q; Film N; Film W & AV W; J Comm; J Ed Data Process; Media & Methods; NMA J; Nat Soc Prog Instr; Prog Learn Ed Technol; Selec Pub AV Mater; Sight Lines; Teach Guid Media Method; Visual Comm Instr; Visual Ed

ENVIRONMENT
Environ Mon; Environ Ed; Man-Environ Syst; Waste & Water Dig

EVALUATION
Ed Recaps; Ed & Psychol M; Eval Comment; J Ed Meas & Eval Guid

FACILITIES
Architect Des; Build Int; Build Syst Design; Constr Prod Technol; Sch Build Equip Supp; Sch Prod N

HEALTH OCCUPATIONS
Allied Med Ed; Am J Nurs; J Am Assoc Med Col; J Am Hosp Assoc; J Am Pub Health Assoc; J Pract Nurs; Nurs Outlook; Nurs Res; Occup Ment Health Notes;

HOME ECONOMICS
Clear House; Fam Coord; Forecast Home Econ; J Home Econ; J Mar & Fam; J Nutrit Ed; Nutrit Today; Tips & Topics; What's New; Wom Wear

HUMAN RESOURCES
Hum Pot; J Hum R; PHRA

INDUSTRIAL ARTS
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INTERNATIONAL
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LAW
Congr Q Wkly Rep; Congr Rec; NJ Leg Index;

LIBRARY BULLETINS
Coll and Res Lib; Infor Bull; Infor Retriev; J Lib Automat; Lib J; Lib R Tech Serv; Sch Lib J; Spec Lib; UNESCO Bull;

MANPOWER TRAINING
Ind Lab Relat Rev; Job Mark Eng Sci Tech; Lab Dev Abroad; Lab Empl Gaz; Lab Dev; Lab Force; Lab Gaz; Manpower; Manpower & Appl Psychol; Manpower Voc Ed Wkly; Manpower Comm; Man Inform Serv; Manpower Res Study Sum; Manpower Tech Exch; Mon Lab Rev; Youth & Work

NEW CAREERS
New Hum Serv N

PLANNING
Futures

RESEARCH
ARM; Alberta J Ed Res; Am Ed Res; Am Ed Res J; Brit J Ed Stud; Calif J Ed Res; Convergence; Diss Abstr Int; Econ Develop; Ed Develop; Ed Res; Ed Res Tec; J Ed Res; J Exp Ed; J Res & Develop Ed; Mat Res & Stand; Monogr Soc Res Child Develop; NCEI Rep; NEA Res Bul; NEA Res Rep; Pacesetters; Res Bull; Res Ed USA; Res Manage; Rev Ed Res; USGRDR Re;

SPECIAL NEEDS
Am J Men Def; Am J Occup Therpy; Ed; Ed Train Ment Retard; Exceptional Child; Exchange; Focus Except Child; J Learn Disabilities; J Spec Ed Ment Retard; Performance; Prog Handicap; Rehab Counsel Bull; Spec Ed; Teach Excep Child; Train Sch Bul

STATISTICS
Area Trends Empl & Unempl; Bull Lab Statis; Bur Cen Cat; Cur Pop Rep; Cur Wage Develop; Empl & Earn; Empl Serv Rev; Empl Situat; Mon Release Fed Civil Man Statist; US Bur Lab Statis-Cat

TEACHER EDUCATION
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TECHNICAL EDUCATION
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TECHNOLOGY FOR CHILDREN
Arith Teach; Child Develop; Childh Ed; Children; Elem Sch Guid & Counsel; Elem Sch J; Grade Teach; Math Teach; Read Teach; Sch Sci & Math; Sci & Child

TRADE AND INDUSTRIAL EDUCATION
Aviat Mech; BACIE J; BACIE News; Car & Driver; FFA Aviation New; Ind Can; Ind Relat; Ind Train Int; Motor T; Pop Mech; Sch Shop

TRAINING
CBI Ed & Train Bull; Can Train Methods; Ed Train Mark Rep; Eng Ind Train Bd Info Pop; GB Min Lab Train Abstr Serv; Hum Relat; Int Coop Train J; Train Develop J; Train Progr; Train Officer; Train System Ind;

TWO YEAR COLLEGES
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Carl L. Marburger, Commissioner of Education
Stephen Poliacik, Assistant Commissioner of Education (Acting)
Morton Margules, Associate State Director of Vocational Education (Ancillary Services)
Harold Seltzer, Director, Bureau of Occupational Research Development

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Special Paper Series edited by Edwin G. York, Coordinator Occupational Research Development Resource Centers

APPRENTICESHIP TRAINING AND CAREER EDUCATION

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Apprenticeship Training and Career Education: Conflict or Consort? An Address at the 28th Annual Eastern Seaboard Apprenticeship Conference, Boston, Massachusetts, June 14, 1972.

SPECIAL PAPER

July, 1972

by
William Wenzel
Associate Director of
Vocational Education

Bureau of Occupational Research Development **Division of Vocational Education**

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* * *

1. CAREER EDUCATION, OUR FUTURE

To think critically about apprenticeship training and Career Education is basically to discuss the future of apprenticeship training – a future that is not illusive and totally unknowable, nor beyond your control.

As one thinks about Career Education, it is really a combining of the academic world with the world of work. It must be available at all levels of education, from the kindergarten through the university, including, of course, apprenticeship training.

A complete program of Career Education includes awareness of the world of work, broad orientation to occupations, in-depth exploration of selected career clusters, and career preparation for all students at all levels. This calls for the teachers of all basic education subjects to incorporate Career Education as the major activity throughout the entire curriculum.

Career Education is not an add-on. In the public schools, it is a blending of the vocational, the general, and college preparatory education. Career Education demands a modification of the priorities of the school administrator. Schools need to provide more classroom supplies and materials that allow "hands-on" experiences at all educational levels. The community needs to be the classroom and vice-versa. The school and community must become one. If successful, the "Career Education" program will mark a significant turning point in education in the 70's, which until now, largely provided youngsters a basic liberal arts education, a "chamber of horrors" program for the general student and not much better for the college bound. This curriculum provided scant regard for the student actually developing career interest.

Under the Career Education concept, students start out with a normal school curriculum to develop basic skills. But as soon as they develop interest in a specific career field, individual curricula are tailored to expose them to career related subjects. A student's own interests are the motivating forces behind the development of this entire curriculum through high school.

What are the goals of Career Education related to apprenticeship training? As I mention these, let's think about some real down-to-earth goals for apprenticeship training in view of the social changes of today. What should be three, broad, long-range goals for apprenticeship training as part of Career Education?

2. THREE GOALS OF CAREER EDUCATION AS A CONTEXT FOR APPRENTICESHIP TRAINING

1. Learning to Live:

This means developing a self-awareness of one's ability and developing the ability to deal with leisure time and society in general.

2. Learning to Learn:

This involves motivating students so that they want to learn the basic educational subjects. This can be done by making the subjects meaningful and by relating them to the real world of work

3. Learning to Make a Living:

This means preparing students so that they have the capability to support themselves economically and to become productive members of the community. Truly, apprenticeship training can and must be one of the major methods of accomplishing the third goal, that of learning to make a living.

Let's think about Career Education and what it is all about. It is not just another name for vocational or technical education. It's not another name for apprenticeship training or, for that matter, any other skill training program.

Whereas vocational education and apprenticeship training are very specific programs, Career Education is a concept with some very broad, long-range goals. Career Education does not involve specific training for a specific occupation. Apprenticeship training does and rightfully should continue to do so. Instead, Career Education, if it is

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implemented in its true design, provides an opportunity to explore many occupational alternatives, thus widening the scope of choices.

Apprenticeship training is a part of Career Education, and the terms are in no way synonymous. Career Education is for all students and encompasses all occupational areas. Apprenticeship training, on the other hand, is not for all students and does not encompass all occupational areas of interest, and again, rightfully so.

A WORKING DEFINITION OF APPRENTICE TRAINING

"...an organized system for providing young people with the manipulative skills and technical or theoretical knowledge needed for competent performance in skilled occupations. The program usually involves cooperation among school, labor, and management, since apprentices learn the skills of the craftsman through on-the-job work experiences and the related information in the classroom. The minimum terms and conditions of apprenticeship are regulated by state and local statutes or agreements."

Source: *Definitions of Terms in Vocational Technical and Practical Arts Education*. American Vocational Association, 1968.

3. CAREER EDUCATION IS FOR ALL AND FOR ALL OUR LIVES

Career Education is not "anti-college" or "pro-trade skills." One of the aims of the Career Education program is to achieve 100% placement of the high school graduate – that is, placement in one of two categories: the active job market, which would include apprenticeship programs; or a junior college or university. Career Education encourages a university education for all students interested in a career which requires an advanced degree. Career Education is not just "another course" to be stuffed into the existing curriculum.

The concept of Career Education needs to be incorporated into the curriculum – the courses which already exist. The idea is to relate the basic subject matter to the world in which we live so that the 3R's become real, relative and responsive to every student – elementary, secondary, and adult.

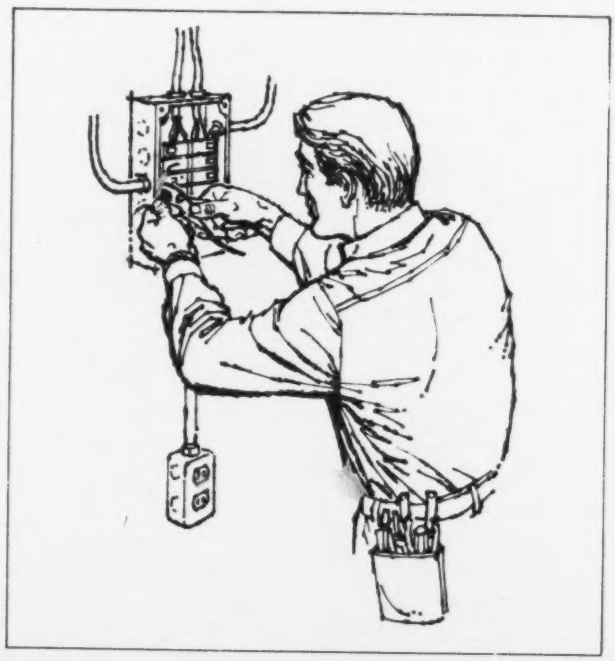
There is no such thing as a "Career Education course" or a "Career Education textbook." The objective is to fuse the Career Education concept into the existing curriculum so that it becomes the major body of activity.

Career Education does not "lock in" a student at an early age to any particular career or occupational group. Career Education allows and encourages students at all levels to "explore" whatever occupational areas he is interested in. He is not bound by any tentative selections and is free to explore as many occupations as he desires. This, to my mind, would allow the prospective apprentice to explore many occupations prior to selecting apprenticeship training upon graduation. Career Education allows the individual to see and try alternatives in the decisions of life.

Let's look at a couple of reasons why Career Education for the adult is important. To get this point across to you, let me just quote from the literature. I don't like to do this too often, but, I believe that there are two quotes worth mentioning at this time. The first one is by Robert Havighurst. Havighurst stated, "I am more and more certain that the future of our democratic society is inextricably bound up with adult education. Nobody can live a competent and happy life in our kind of society without recourse to education throughout his entire life." The second passage would be this: John Gardner stated, "We should drop the increasingly silly fiction that education is for youngsters and devise many more arrangments for life-long learning. Education is a life-long process."

4. LEADERSHIP FOR THE CONSORT OF CAREER EDUCATION AND APPRENTICESHIP TRAINING

What would be an optimum program of apprenticeship training to complement Career Education? The U.S. Office of Education, through Dr. Sidney P. Marland, Jr., has set Career Education as a national priority for the U.S. Office. Dr. Marland and his staff see Career Education as being, in the most fundamental sense, a bridge – a bridge between school years and work years, between educators and employers, between the life of a child and the latter years of adulthood, between an empty and a full life. In addition, Dr. Marland sees Career Education as stressing reality in the classroom – not



smothering the student in the dubious tradition that for everyone learning in and of itself is a sufficient reward for the toilsome journey.

Career Education would enable us to turn our teaching energies to acquainting the young with the occupational facts of life in progressive, broadening, deepening stages and giving them an idea as to where they might fit into the modern employment scheme. Economy, business, government — these would be included in the career curriculum. Broad occupational clusters such as the health sciences would be systematically investigated, including every health component from food handler to brain surgeon. The underlying and continuous purpose of Career Education would be to equip students for development and fulfillment within our culture, not enforcing premature commitment to a single job field, but gradually narrowing preparation to fit the natural aptitudes and informed interest of each student. This is where, as one can readily see, apprenticeship training fits right into the picture.

I can see where the number one priority for the nation in terms of the U.S. Office of Education, that of Career Education, could place apprenticeship training on the cutting edge.

You, the leaders in the field of apprenticeship training, must move to make yours a leadership role — as opposed to an administrative role — a real institutional leadership role in terms of the involvement and the role of apprenticeship training in the overall program of Career Education. You will see an awakening of apprenticeship training as a program of instruction. You will see a new role nationally for yourselves.

If you do not move to grasp this role for apprenticeship training in Career Education, I believe that other methods of training and other programs will take over the role that is clearly available for apprenticeship training in this new field.

Let's look together for a minute at some of the possible contributions of apprenticeship training to this new national priority — that of Career Education.

Let's look at the area of Career Education and apprenticeship training in the environment. The development of an environmentally aware generation will have a major impact upon the policies and policy-making processes of a democratic society. Citizens who know their long-run, best interests are most likely to promote them through all the means at hand. When society perceives a need and sets objectives, it then moves to allocate its available resources to the priorities indicated by the objectives.

As every elementary economics student knows, the basic resources of the society are natural resources, capital resources, and human resources. In an earlier age, natural resources determined a society's wealth and welfare, especially the fertility of the soil. Subsequently, though natural resources never lost their importance, industrial resources — the technology to expand man's productivity — rose in preeminence. Now, we appear to be entering an age when human resources will dominate.

It is a time when the most critical problems of society will not lend themselves to attack based on land, new materials, or machines. The primary tools of this society are the talents and skills of its people. Think about that statement in terms of apprenticeship training and Career Education.

Whatever our problems — the search for peace, the abolition of poverty, the prevention and cure of disease, the reduction of crime, or the control of environmental quality — the solutions depend upon dedicated, talented, and well-trained people who understand and can intelligently use whatever technological tools are available.

It is this growing awareness of this new dependency on human resources that has pushed the U.S. economy into an educational investment which has expanded from a billion dollars to 65 billion dollars in 25 years. It is the same phenomenon which underlies the emergence of remedial manpower programs to assist those unable to compete successfully in more sophisticated labor markets. It is this same awareness that has placed apprenticeship training on the cutting edge of a new involvement in this new concept of education.

Where do I see apprenticeship training best fitting into this Career Education process? I see apprenticeship training — at least the new optimum programs of apprenticeship training — integrating and coordinating learning experiences that hold open the door to this life-long process of job entry and exit as interests and needs change.

This will mean a "new look" for apprenticeship training. This "new look" could include: task oriented, not calendar oriented, programs; and mini programs — a collection of programs that could constitute the new apprenticeship program.

5. CREATIVE CONFLICTS IN THE EMERGING SITUATION

All of my previous statements and recommendations are those that I would like to see occur in the field of apprenticeship training.

Do I really see consort between apprenticeship training and Career Education? No, I do not. Basically, I see conflict. In fact, continued conflict — because I believe that our Career Education program across the nation will turn out a person more interested in the "trainee" concept of job entry rather than a true apprenticeship training program.

APPRENTICES IN U.S.

DECEMBER, 1971

* 186,200 federally serviced apprenticeship programs
* 11% of all apprentices were in minority groups
* 18% of the 110,592 apprentices in the construction trades were in minority groups

(Source: *Manpower Technical Exchange, June 23, 1972*)

THE NEW JERSEY APPRENTICE TRAINING PROGRAM

* over 7,000 individuals currently registered
* over 70 trades and occupations served
* A state-wide, voluntary, cooperative program utilizing the coordinated efforts of labor, industry and education

I see Career Education, the minority employment issue, the trainee idea, in-plant training programs, cooperative education programs, and other issues and programs all contributing to what I see as a national conflict with our traditional concept of apprenticeship training. If indeed we are to move into a new era of importance for human resources, then apprenticeship training must change and change radically. It must truly assume a "new look."

The question is, and I know that this is going to be a very sensitive issue on which to end, can apprenticeship training assume the required "new look?" In the face of such pessimism, is it possible to reach a responsible vision of a believeable, workable future for apprenticeship training? I believe it is.

I think that the apprenticeship training system is capable of that kind of innovative change which is necessary to move into a new post-industrial era. I believe that apprenticeship training and those of you in apprenticeship training have the capacity to direct one of the most reliable methods of skills training ever conceived.

Two steps are required to support this optimistic view. First, you must extend your time frame for policy formation beyond the customary one, two, three, or five years. This extended time concept will encounter understandable obstacles. Policy makers, such as those of you gathered here today, in general, are pragmatists — they are men who are, afterall, charged with the responsibility for running an operation and can't afford such blue-sky thinking that will, in the end, change the basic operational structure. I believe that through your efforts the necessary transformation can be achieved and we can maintain the quality characteristics we would like to have.

Second, and probably most important, the scope of the policy perspective of the apprenticeship training system must be substantially broader to more readily understand interdependencies and qualitative consequences.

If we are to have a future of promise for apprenticeship training rather than threat, we must conceive a flexible goal and then develop ways that our institutions will collectively work to bring it about. We must begin to consider policies and objectives in time dimensions of twenty or thirty years into the future.

The next 30 years will not be like the last 30 years. Rather, speaking conservatively, the degree of change that we will experience will be more like two and one-half to three times that experienced in the last 30 years: 2000 will be to 1970 as 1970 was to about, let's say, 1870 or 1890.

In order to develop the necessary strategic alternatives, you must think about the total behavior of the society which is the stream of many individual decisions made throughout a very pluralistic set of diverse institutions. Collectively, the actions become a part of operating national policy.

My charge to you, the audience and to the reactors on our panel, would be to develop a set of alternative futures for apprenticeship training. To develop these futures, one must keep in mind that the assumption that the future is going to be like the past is essentially invalid. If we are even to have a future for apprenticeship training, the alternatives we build into our apprenticeship training system will largely determine its future.

Carl L. Marburger, Commissioner of Education
Stephen Poliacik, Asst. Commissioner of Education
Morton Margules, Assoc. State Dir. of Vocational Education
Harold Seltzer, Dir., Bureau of Occup. Research Development

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Special Paper Series edited by Edwin G. York, Coordinator
Occupational Research Development Resource Centers

HIGHLIGHTS

OF THE INVITATIONAL CONFERENCE ON CAREER DEVELOPMENT

Highlights of the Invitational Conference on the Governor's Career Development Program: August 2, 1971, N.J. State Museum Auditorium, Trenton, N.J.

SPECIAL PAPER

OCTOBER, 1971

Speakers:
Dr. Robert M. Worthington, Presiding
The Hon. William T. Cahill, Governor
Mr. James W. Riley
Dr. Sidney C. High, Jr.
Dr. Morton Margules
Dr. Joseph F. Kelly

Bureau of Occupational Research Development — Division of Vocational Education

THE CONFERENCE

At the invitation of Governor William T. Cahill the mayors and chief educational administrative officers of 24 New Jersey cities, presidents of boards of education, and representatives of teacher organizations met at the State Museum Auditorium on August 2, 1971 to learn of the progress made in pilot comprehensive career development programs operative since October 1970 in Camden, New Brunswick, and Rahway.

The Governor's Invitational Conference on the Career Development Program was hosted by Dr. Robert M. Worthington, Assistant Commissioner of Education, who on the following day, August 3rd, was sworn in as Associate Commissioner for Adult, Vocational and Technical Education in the U.S. Office of Education. Dr. Worthington has stated that his top priority in his new responsibility would be to implement career education programs throughout the U.S. He commented: "If I could do in every state what he (Cahill) proposed to do in New Jersey, that is the answer to American education."

Dr. Robert M. Worthington,
Assistant Commissioner of Education
New Jersey State Department
of Education
Presiding

"(career education programs) . . . the answer to American education."

GOVERNOR'S ADDRESS

by The Hon. William T. Cahill,
Governor of the State of New Jersey

Ladies and gentlemen, let me very sincerely thank all of you for being with us today. I think that the percentage of invitees here today — particularly when we consider that this really is the height of the vacation period — is a tribute to your interests in the education of the young people of the state of New Jersey.

I'm particularly grateful to all the mayors that are here, to the members of the school boards that are here, to the superintendents of schools, to the representatives of the teacher's association, the representatives of the New Jersey Manufacturers Association, headed by Jim Riley, and another group of very interested citizens from the Bergen County area, headed by Alex Summer, who during this past year have all worked so closely with the Department of Education and the Governor's office.

The Hon. William T. Cahill,
Governor of the State of
New Jersey

". . . the early results are exciting."

I'm also grateful to the members of the State Advisory Council (for Vocational Education) for being with us. Their contribution has been most substantial, and I'm very grateful.

I would also like to publicly express warm appreciation and deep regrets — warm appreciation for what Bob Worthington has done for the State of New Jersey, and regrets . . . that the federal government is stealing talent from New Jersey. Bob is going to be sworn in tomorrow as Deputy Commissioner of Education on the federal level and he's going to make the same kind of a national contribution as he has made a state contribution. Bob, we wish you well. We're very grateful.

I want to express my appreciation to Vic Podesta for being here representing the Commissioner and for the representatives of the teachers' association.

I don't have any prepared text, and I would like to do two things today. I'd like to speak very frankly to you, and then I would like to throw this meeting open so that you can speak very frankly to me.

I think we've been talking too much in New Jersey and acting too little . . . I'm looking forward to great progress in the State of New Jersey and great cooperation from the teachers' associations, from the boards of education, from the mayors, from interested citizens, an enlightened group of superintendents, and an enlightened coterie of principals and teachers. We're going to get it because I'm convinced as I've never been before in my life that the single most

important answer to the problems of the State of New Jersey lies in the education of our youth.

* * *

What I want to talk to you about is one of the ways to change the thinking of the country and particularly to try and do it in New Jersey. It's not necessary that every boy and girl go to college in order to be successful. First of all, all of them don't want to go to college, and secondly all of them can't go to college.

We're giving the impression today that if you don't go to college, you're a failure. We're making our curriculum in our high schools today so oriented to college education that we're flunking out kids, or making it impossible for them to pass. They go out in the first or second year of high school marked as a dropout, when they're just not interested in the curriculum, or they don't have the mental capacity or intelligence or, most of all, they don't have the motivation to be interested in it.

What this program says – in Bill Cahill's words not the educators' – is this: that when a boy or girl finishes school – and he or she ought to finish – he or she should be equipped to go on to college or to get gainful employment and become a member of society who can have pride in what he's doing and be able to sustain himself and be able to say "By God, I'm just as successful as that other guy."

We have often heard it said that a great actress is as successful but no more successful than a great mother. I believe that a great plumber and a great electrician is just as successful as a great doctor or a great dentist. I think that any man who works to his capacity in any field and who gives an honest day's work to his fellow citizens is a great success.

Today I just can't believe it when the Commissioner of Labor of New Jersey gives me statistics telling me that we have an unemployment rate in the State of New Jersey of almost 8% and that at the very same time we have 3,000 jobs available in our unemployment offices. How can you have all of the unemployed and at the same time have all the jobs? The reason, I think, is pretty clear: the kids – the people – that are unemployed are not trained to do the jobs that are available.

What I think we've got to do in our schools is to let a kid go as high as he wants – if he wants to, to the moon, like three guys are doing right now. If a kid doesn't have the capacity to be trained as an astronaut – and every kid doesn't – there ought to be a way to train that kid.

What I think about this program is: it's a way of finding out; it's a way of motivating; it's a way of encouraging a kid to want to go to the moon; it's a way of keeping a kid in school; and, it's a way of exciting his imagination.

If a kid can build a birdhouse, maybe he can build a house. If he can build a house, maybe he can be an engineer. If he can cut a little ribbon, maybe some day he'll use a scalpel or maybe he'll be a tailor. Whatever trade he learns – if we can teach that kid to do it with pride and with a feeling of success – we're going to not only eliminate or minimize juvenile delinquency but also welfare.

All of us want to eliminate poverty without the expense of a poverty of the spirit but that's what's happening. We have people today on welfare who ought to be working but they're not. They're not trained to work. They haven't been motivated to work. They don't know the excitement and the pleasure and the joy that comes from work. When we don't work, we get into bad habits. It's good for all of us – including me – to be working.

* * *

The Department of Education thinks (the career development projects are making) great progress. I don't know. I will know, however, in one year because we're going to evaluate this program. We're going to compare it. We're going to compare the schools that have it with the schools that don't. We're going to compare the kids that have it to the kids that don't. We're going to examine their reading and their arithmetic and their improvement in their ability to acquire knowledge. We're going to look at their attendance. We're going to look at their conduct. We're going to look at the number of disciplinary problems they have in the school. We're going to talk to their mothers and dads. We're going to know.

All I'm saying is: give it a fair chance. We'll look at it without a closed mind and say it's not the way we did it when I was a boy. Life today is a little different than when we were kids you know. We have a little different system at home. We have a little different system in the classroom. And, we have a little different system in the church. These kids today don't have the disciplines we had and we've got something more important – motivation.

I've seen motivation. I've been in the Parkside School and I heard one teacher there tell me of a boy who came there with a record that would have prompted the average teacher to call the cops. Yet, after that boy was there he was one of the most successful students in the class. Why? That teacher was able to motivate the boy.

All I'm saying to you is: in this room today we have teachers' associations representatives and teachers who don't always get along with members of the board of education and vice versa. We have superintendents of schools who don't always agree with the teachers that are under them or the boards of education that are over them. We have the State Department of Education that sometimes doesn't agree with anybody but most times agrees with everybody. We have here the leaders of the communities, Republican and Democrat mayors. We have the Manufacturers Association. We have some politicians. Unless we forget it, we all have the same product. We're all really trying to do the same thing in a different way.

We're trying to make New Jersey a better state by bringing quality education to the young people, so when they get to be older kids they won't have the problems that kids are having today. When they get old enough, they'll be qualified to go to college or they'll be able to get gainful employment. If together we can do that, then when we're finished with our job, we will really be able to leave New Jersey a little better place.

We fail if any one in this group fails. We fail if the teachers or the boards of education won't cooperate. We fail if the mayors won't give the leadership and be willing to stand up and explain this program to those parents who say "you're trying to make a mechanic out of my son: you're trying to make a janitor out of my son!" even though that's not the purpose of this program.

The purpose of this program is to let a boy or girl go as high as he wants to go, but to make sure that he enjoys school, that he stays in school and that he's trained.

The hands are part of the body and part of the overall man. It's fun to work. It's a joy to work. It's a great feeling to think that you're a success. Whatever that boy or girl

does, as long as we can make him or her feel and know success, then I think we have solved a great many of the problems of the State of New Jersey.

I'm very delighted today that Dr. Sidney High from Washington is here. As you probably know, he is one of the top men in the United States of America. I understand that Dr. High said publicly today that he feels that in New Jersey we are on the threshold of a breakthrough into a new concept in the field of education that is now beginning to receive the attention of the entire country. He feels we're ahead of our times. He feels we have concepts working for us now that can put us ahead of many of the states of the Union and can lead us at an early date into the things that ultimately will be acceptable and programmatic throughout the entire country.

Today I read in the headlines of the newspapers that Edith Green, the very distinguished congresswoman from Oregon who is regarded by all in Washington as one of the great advocates of higher education in the Congress of the United States – even before I was there – say that there has to be a balance and that we have to be able to support and do something with vocational training. And Edith Green is one of the strongest voices in support of higher education today.

Everybody will not go back to the old German system – the old system that if you're a dropout, you go to a vocational school – No! Putting vocational training on the same plane and giving each boy and girl an opportunity to do their very best – Yes!

I really appreciate your interest. I know a great many of you personally. I know the dedication that you have. I know the contribution you can make. I hope that any ideas you have you'll pass on through my office or to the Department of Education so that we can try and improve this program. If it's your wish that we try it in your community and you'll express that wish to us, I can assure you that it will be considered.

I've made a commitment to the Department of Education that in this year's budget I will recommend an expansion of this program in the three areas where it is now located so that it will be fully implemented in those three cities, and I've agreed to go one more this year. The reason I've limited it is because I want to see some hard facts and statistics before we make the great commitment as far as money is concerned in this field of career development. I think the early results are exciting. I think we all have to wait until the final results are in.

I appreciate very much your courtesy. I appreciate everything that you're doing to help us do what all of us want to do for the kids of New Jersey. Thank you very much.

The Governor's Career Development Program: A Point of View from Business and Industry

by James W. Riley, Chairman, Education Committee, New Jersey Manufacturers Association

The announced title of my paper is: A Business Point of View of the Governor's Career Development Program. Now it is an intriguing idea that there might be a "business" point of view on anything because businessmen I've known hold views ranging from imperial blue to Harvard crimson. It borders on the incredible, however, to believe an economist could provide or be aware of such a position, even if generally shared among businessmen. And economists, as an article of faith, never agree on anything except that their profession is underpaid, misunderstood and too frequently thought to be a subsection of domestic science.

As a matter of fact the newspaper reports of my marriage listed my occupation as home economist even though – at the time – I was gainfully employed by the New York Stock Exchange. I didn't really mind the error even when my father-in-law's friends stared at me. I didn't really mind, that is, until we opened our wedding gifts and found 18 cook books, 7 books on decorating, 4 books on making the house beautiful and numerous subscriptions to women's magazines. It staggers the imagination to visualize the wedding gifts if the announcement had listed me as an expert on population control.

I assure you my remarks do not represent a business consensus. They are based on my experience as a university administrator, as a member of the business community, and as Chairman of the Education Committee of the New Jersey Manufacturers Association. It is the last role that gave me the opportunity to become intimately involved in the Governor's Career Development Program – an involvement that in turn, lead Dr. Worthington to ask me to be part of this morning's program and caused me to accept.

James W. Riley
Senior Economist,
Merck and Company, Inc.

". . . the Career Development Program is a good buy."

First, let me emphasize my belief – supported by empirical data – that our education system in this state and in this country is, by any general standard, superior to all other systems in the world. If we accept, as I do, that education is a precondition for economic and social development, its success in our country is obvious. Educators – and taxpayers – should be proud of their accomplishment.

But, as members of a complex, technology oriented, and wealthy society, we continually demand more from our educational system. In fact, it is not uncommon to demand that the system provide solutions to problems that society in general has failed to solve. If we diffuse the role of educators by asking that they cope with social problems, we must expect higher costs, less efficiency, and confusion.

The Governor's Career Development Program is no panacea for social hangups: it wasn't meant to be. But it would be hard to over-estimate the importance to the people most effected – your students – of finding satisfaction in a life's work.

Experience with the Career Development Program, to

date, suggests it has promise for improving the educational process. It is not, however, going to tear up or replace current educational practices. It is hoped that it will provide guideposts for continuing the evolutionary improvement in education. The program is experimental in two ways: first, it is new – just some 6 years old – and thus by definition is experimental. Second, it is as yet unstructured: the exact way and amount of time devoted to it in various school settings is open.

The unstructuredness of the program may be, in fact, one of its major virtues – it is sufficiently flexible to meet varying conditions among different students and in different areas over a period of time. The program has a kind of universality about it not found in most structured educational programs. Put another way, it has attracted neither rigid true believers nor unalterable antagonists. While the core and philosophy of the programs you witnessed are constant, techniques of instruction will vary among classes and schools. In the businessman's lexicon, the results are more important than exact structure or form. More poetically, the one undeviating principle is flexibility in means and steadfastness in goals.

The overall goals desired from an educational system or program by a businessman, and probably any concerned citizen, are:

– an educated person, because without a literate citizenry our economic, political and social structures will crumble.

– a base from which a person can build a productive and worthwhile life, because failure to do so means wasted lives and resources. And finally,

– efficiency, because waste means lower quality output and lack of future support no matter how noble the goals.

The efficiency question, while extremely important, involves externalities not specifically germane to our evaluation of the Governor's Career Development Program. However, the Committee was and continues to be concerned with the added burden this places on the educational budget. Yet, as experience with the program is gained, there is little doubt – per school, or per class, or per student – that real costs will be reduced from those suggested by the Pilot Project. Moreover, some rather simplified but broadly inclusive cost-benefit analysis suggests that the Career Development Program is a good buy.

The specific goals of the Career Development Program as I see them in terms of relative importance should be:

1. Improved incentives for learning and new techniques for learning.
2. Increased learning opportunities for the students not moving directly on to further formal education.
3. Increased awareness of the complex technological society that all students eventually must enter, and finally
4. Improved pre-graduation work experience for those interested in it.

If you accept as I do that you can't force – but must encourage – students to learn, that a large segment of high school students find the education system sterile, and that an even larger number of students are ill-prepared for the post-school world, you must agree the goals suggested previously are on target.

The monitoring, reviewing and other efforts of the New Jersey Manufacturers Education Committee suggest that the Governor's Career Development Program is relevant in terms of both the goals they have established and the program developed to meet these goals. The Committee has been intimately involved with the program from its inception, and made numerous visits to the pilot schools both before and after the program was begun. Further, the Committee held meetings with invited experts in this area and in general reviewed problems as they developed and commented on them to the Department of Education. The Committee believes, all things considered, that the program will improve, as well as add new dimensions to the education process.

The Committee found that the Pilot Project at schools in Rahway, New Brunswick and Camden:

– resulted in substantial revision of instruction and management technique, particularly in elementary grades, leading to greater student participation and added incentive for students to learn; and

– heightened recognition, by faculty and administration alike, of responsibility for preparing students to pursue successful careers.

This doesn't mean that the program is without problems. The Committee commented on the need for advanced and extensive training of the staff teaching T&C, strengthening the role of Career Resource Centers to provide greater assistance to individual teachers and increased use of inter-faculty conferences and visitations among schools. The Committee was also concerned that the informal approach didn't turn into a play time or high priced "babysitting" or a place to dump trouble-makers. But these are the kinds of problems and concerns one expects in a new effort and they can be corrected, prevented and/or overcome with increased experience.

Similarly, the Committee commented on the lack of conclusive scientific proof of the program's success. But the Committee found the data showing heightened interest on the part of students, parents and teachers, and also showing gains in the students' reading and vocabulary skills and occupational cognizance, to be indicative of the Program's value, if not scientific proof of its worth.

Recognizing the absence of tools for precise testing and evaluation of the Program at this point – but similarly recognizing that lack of data for decision making is a universal condition – I would recommend that you seriously consider it. Probably every school district already includes some parts and techniques of the Career Development Program in its curriculum although there must be vast differences among districts in quality and quantity. The question is thus whether you will expand your efforts to create a fully coordinated and integrated program. My guess is that with the full program, educational returns are much greater than the sum of the various parts provided separately would suggest. Additionally, there are significant new processes and techniques in the various segments of the Governor's Program that are worthwhile in and of themselves. Yet again, their value is greater taken as a unit.

Finally, the very vastness and reluctance of educational systems to change suggest action must be taken now on the Career Development Program if we are to see measurable impact on the system's output by the end of the decade.

Summing up – the Governor's Career Development Program appears sound in approach and technique. It, like all new efforts, faces problems in both development and implementation but these can be solved over time. I'm

convinced the Governor's Program has the right goals, and the right programs at the right time and is worthy of your serious consideration.

Dr. Sidney C. High, Jr.
Chief, Exemplary and Services Branch,
Division of Vocational and Technical Education
Bureau of Adult, Vocational and Technical Education
U.S. Office of Education

". . .New Jersey is on the 'cutting edge'. . ."

The National Ground Swell Toward Career Education

by Sidney C. High, Jr., U.S. Office of Education

It is always a pleasure to come to New Jersey and participate in discussions concerning the career development activities which are underway in this State. I am always encouraged by what I see, and I always go away feeling that I have become aware of new techniques and approaches that are being developed by creative people in New Jersey to implement the career education concept.

During my visits to various parts of the country, I have been sensing a strong ground swell which is developing around the idea of career education. The State of Arizona, for example, will be launching K-12 career education programs in 15 local school districts during the 1971-72 school year, with special funds appropriated by the Arizona State Legislature. The State of Georgia is moving systematically to develop a comprehensive model of a career education program in the Cobb County School System, and tested components of this model are being spread out and installed in other local school districts throughout the State. The State of Mississippi has developed a model career education program in Jones County, and is taking steps to spread this model to other local school districts. Other states such as Wyoming and North Dakota, are moving in this same direction. The State of California has recently established a State-level task force within the State Department of Education to work out plans for implementing career education in the California Public Schools.

Many of these states are now at the point which New Jersey had reached 12 or 18 months ago. New Jersey, with its pilot career education programs in New Brunswick, Camden, Rahway, and Hackensack, has established a position of national leadership in career education and is blazing the trail of progress in implementing career education in the "live" operational settings of local school districts. I know that New Jersey's progress is built upon a solid base of experience, growing out of 5 years or more of preliminary work on essential components of an overall career education system, such as the "technology for children" program at the elementary school level and the "introduction to vocations" program at the junior high school level.

Since New Jersey is on the "cutting edge" of the rising national ground swell toward career education, many of the techniques and approaches which are being pioneered here will ultimately be adapted and implemented in the other states which are now moving in this same direction. For this reason, I always go away from a meeting in New Jersey with the feeling that I have picked up some new ideas which will be useful to the U.S. Office of Education and to other states in connection with the development of comprehensive career education programs.

I have enjoyed the presentations which have been made so far this morning, and I would like to react specifically to the talk made by Mr. James Riley, Senior Economist of Merck and Company, representing the New Jersey Manufacturers Association. Mr. Riley's main points, as I understood them, were:

(1) From the standpoint of business and industry, the goals of career education are on target.

(2) The cost-benefit ratio of career education is favorable.

(3) The separate techniques utilized in career education are valuable by themselves, in that each technique serves to enhance the traditional learning process in the schools.

(4) The total career education program is greater than the sum of the parts because when all the separate techniques and components are operated together, there is an overall interaction in which the separate parts reinforce each other.

It seems to me that these are extremely important points, and they carry special weight since they have been derived from the actual experience in your ongoing pilot projects in career education here in New Jersey. To the extent that we can verify these points through the continuing evaluation which you are conducting in connection with your pilot projects, they will represent significant findings indeed for other states which are considering moving toward career education.

Let me say, again, that I am very pleased to have been invited to your conference, and I am most encouraged by the progress which New Jersey is making in career education, as reflected in this morning's presentations.

REPORT ON THE EVALUATION OF THE CAREER DEVELOPMENT PILOT PROJECTS

by Dr. Morton Margules, Associate State Director (Ancillary Services), Division of Vocational Education, New Jersey State Department of Education

On March 3, President Nixon in his message on education stated that "school administrators and school teachers alike are responsible for their performance, and it is in their interests as well as the interest of their pupils that they be held accountable."

Accountability as such depends to a great extent on a broad understanding of the structure that starts with establishing goals and seeing whether we have reached those goals. In a survey that was federally supported to determine the educational achievements of students, it was confirmed that the knowledge and learning skills are

greater when so-called text book information is reinforced by practical experience. This survey, according to Dr. James E. Allen Jr., former United States Commissioner of Education, is "the first real assessment of the educational level of various age groups nationally."

This comment concerning the relationship of practical experience to text book information has a bearing on the work being undertaken in this career development project. It has tremendous import for the role and the contents of career development in the learning processes of young people and adults.

In evaluating career development, the total career preparation picture should be scrutinized and the emphasis should be placed in as far as practicable on measuring outputs rather than on measuring the amount of money, the characteristics and number of personnel, or equipment devoted to the program. It is more important to determine the direction that the programs are moving than to pin-point the position of the program at any particular time. If sampling data is not available, qualitative judgements based on experience and observation will have usefulness.

One of the important outputs of a good career development program may be a substantial improvement in self-image, self-confidence and self-respect of the student. His ability to gain added job information and experience though this program builds his confidence.

The original guidance, counseling, and career orientation which a student receives to help him choose the academic or vocational curriculum, and the particular field in which he will specialize, is crucial to his later success. It is important that these be conducted in a unified manner, assisting the individual to gain a great amount of knowledge concerning various careers.

Available studies suggest that the single most effective measure of the success of these programs is the quality of placement and follow-up procedures. These services have the power to make or break a program. Far too few schools have adequate placement services or attempt to follow-up on what happens to their graduates after initial placement. These are appropriate subjects for evaluation.

In applying the above criteria for each of the pertinent groups in evaluation of career development, it may become apparent that there are certain non-economic pressures operating outside of vocational education. These may be viewed as having a great effect on decisions as to which programs to offer and the success or failure of such programs.

For instance, in a particular area the problem of a negative environment may be apparent. The attitudes of persons in the area may be viewed as causing vocational education to have low acceptance, to be considered appropriate only "for somebody else's children." It should be determined whether improvement of the quality and range of programs offered would effectively solve this problem in that area, or whether a public information effort would be necessary to deal with the problem of attitude per se.

The focus in career development is upon individuals rather than upon courses. Education for careers is a process of development of individuals rather than courses leading to a particular job. Occupational acquaintance and exploration, preparatory and job training, placement, and continuing education are parts of this developmental process.

Dr. Morton Margules
Associate State Director
(Ancillary Services),
Division of Vocational Education,
New Jersey State Department of
Education

". . . the emphasis should be placed on measuring outputs. . ."

Governor Cahill's Career Development Pilot Project was implemented in February, 1971. During the following five months procedures were undertaken to provide an assessment of the project within this time constraint. The school districts carried on a self-evaluation. The following is a summary of their reports.

A SUMMARY OF FINDINGS AND RECOMMENDATIONS

– Self-Evaluation of Governor Cahill's Project of Career Development –
(Camden, New Brunswick, Rahway)

I. FINDINGS

A. Technology for Children

1. Pupils' attitudes have been definitely improved as evidenced by the improvement of attendance and decrease in latenesses (tardiness) and disciplinary suspensions.
2. Parents were mostly in favor of the Technology for Children Project. The majority of the parents surveyed indicated that their children like the Project, and felt that their children's academic learning had been enhanced as a result of participating.
3. The teachers also felt that their students showed tremendous progress in the areas of interest level, work effort, ability to work with others, and their self-concepts.
4. Certain set backs to the program are in the area of equipment. Teachers did not have enough equipment. These problems can be rectified without too much trouble and should not present a problem next year.

B. Introduction to Vocations

1. Students' attitudes toward the program have been improved as evidenced by their attendance records in comparison with the previous years.
2. Students' grades have shown general improvement.
3. Teachers' attitudes toward the program are most favorable.
4. School administrators are delighted with the program's progress, and are anxious to expand the program.
5. Parents' comments are mostly positive.

C. Job Placement

1. The student's typical response to the program was rated very high.
2. The teachers felt that the program provided realistic work conditions which were excellent learning situations.

(continued)

SUMMARY (continued)

3. Difficulty in locating jobs for students varies from place to place. In one of the three cities, the director of the program was able to find more jobs available than there were applicants.

4. The Coordinators involved in this program ssemed to show a genuine enthusiasm toward the program.

5. Students earned over $20,000 as a result of part-time employment.

II. RECOMMENDATIONS

A. Technology for Children

1. Increase flexibility in teacher planning.
2. Immediate acquisition of supplies.
3. Close supervision of the classroom teacher should be undertaken to make sure that the ideas and ideals of the program are followed.
4. Regular scheduled meetings need to be held with the faculty to evaluate the on-going program, and provide demonstrations of activities or techniques requested by the teachers.
5. Freedom needs to be given to depart from curriculum constraints in subject matter coverage in order to generate new approaches.
6. If undertaken with another school district, this program requires extensive pre-planning and prior acceptance of teaching staff, administration and parents so that a clear mandate is expressed and the entire school community participates.

B. Introduction to Vocations

1. The Introduction to Vocations program should include all students.
2. Greater parental involvement is recommended.
3. Teacher training for this program should be strengthened.
4. Advisory committees specifically designated for the program are recommended.

C. Job Placement

1. The job placement coordinator should perform his duties on a full-time basis.
2. It may be desirable to subsidize part of the wages of the students placed in part-time employment.
3. It may also be desirable that funds be provided so that students can be given gainful employment within the school complex.
4. Better cooperation should be sought by the school with the New Jersey Employment Service and other relevant social agencies.
5. It is suggested that the teachers involved in the programs be given greater flexibility in the selection of equipment for their individual cycles.
6. It is recommended that a summer workshop be held for orientating the teachers who will be working in next year's program.

Respectfully submitted,

Task Force Committee for the Evaluation of Governor Cahill's Project of Career Development
Dr. Po-Yen Koo, Chairman

In addition to the previous report, an objective evaluation by a disinterested group was sought. A contract was made with Dr. Elaine House of Rutgers University for this purpose. The following is the summary, and recommendations of her report.

SUMMARY AND RECOMMENDATIONS

Governor Cahill is to be complimented for having sponsored a career development project of such magnitude before the country as a whole had even heard the term "career education". His insistence upon objective evaluation is also to be commended, as evaluation is the weakest aspect of programs reported. It is costly, time-consuming and often threatening.

This evaluation was conducted despite several real constraints:

a. Resources – the time period was extremely short, and funds were limited.

b. Lack of available test instruments, particularly elementary level.

c. Lack of comparison groups. The districts had been assured that no comparisons would be made initially among either teachers or pupils.

Children in T4C showed gains in reading, vocabulary and occupational cognizance, although, as anticipated, the gains were slight. Responses from more than half of the groups studied indicated a feeling of doing well and/or wanting to do better in both the cognitive and manipulative areas. However, the large percentages of responses indicating lack of skill in the cognitive area, particularly in the upper elementary grades, needs further study.

Evaluation of Introduction to Vocations could not be completed because University of Iowa test results were not returned for analysis.

Evaluation of Coupled Work Study cannot be completed until early in the fall 1971, as this is a summer program.

General Recommendations

1. Evaluation should be more closely coordinated. It is inexcusable that the Introduction to Vocations test data could not be located.
2. Insofar as possible, tests should be administered by a member of the evaluation task force, and not by classroom teachers (This does not apply to the schools' regular testing program).
3. A means must be found to assess the extent of implementation in accordance with guidelines established by the Division of Vocational Education.
4. Objectives of all programs should be reviewed.
5. Programs themselves should be reviewed and revised in a systematic, continuous basis, with particular attention given to their sequential aspects and the growth in self-awareness and vocational development of the pupils involved. Strengths of programs in other states should be considered and possibly incorporated.
6. Introduction to Vocations should be for all pupils, irregardless of their future educational and vocational plans.
7. Provision should be made for longitudinal evaluation.

We believe the career development project is just beginning to show its potential. When the gaps in the sequence are removed by additional resources this program will have permeated all of education.

Respectfully submitted,
Dr. Elaine House,
Rutgers University

EXCERPTS FROM "A TALE OF THREE CITIES", A MULTI-MEDIA PRESENTATION ON THE CAREER DEVELOPMENT PILOT PROJECT

Dr. Joseph F. Kelly
Director of Curriculum and
Media Research
Division of Vocational Education
New Jersey State Department of
Education

". . . tomorrow's education in today's classrooms."

Technology for Children (T4CP), the initial phase program for career development, was designed to help teachers combine technological activities with regular academic lessons for children in grades K through 6. The children are encouraged to work with a wide variety of tools and materials and are constantly confronted with problem-solving situations. What is technology? Technology may be considered as man's effort to control his environment.

T4CP is not just another subject to be added to the school program. It is the inclusion of high-interest activities which complement and supplement the traditional curriculum. It believes the child is more important than the curriculum. The child comes first in T4CP.

T4CP does not replace the traditional curriculum. It just refocuses it. Busy work – long an ingredient in the traditional classroom – has no place in T4CP. The method used in T4CP is guided discovery and guided discovery is only possible through individualized teaching and learning.

Traditional teaching methods may not always meet today's needs. In T4CP, technology and tools and materials are used to motivate the natural curiosity of children. T4CP emphasizes student interest and exploration to give that student success and self-confidence. Through this approach the child-learner develops into a responsible individual and responsible member of society.

Technology for Children is a new curriculum designed to make learning more interesting for children. It is a look at tomorrow's education in today's classrooms.

A second stage program for career development is the Introduction to Vocations Program (IV). This exploratory program is aimed primarily at 7th, 8th and 9th grade students but, in special instances, 6th and 10th grade students also participate.

Introduction to Vocations is a vocational guidance program organized to be an integral part of the student's overall educational plan. It employs "hands on" activities, field trips, guest speakers and audio-visual media to expand the student's career awareness.

The IV Program uses the industrial arts, home economics, science and business laboratories in a school to expand the student's career awareness. A number of schools without the usual laboratory facilities are able to implement Introduction to Vocations by using a creative, flexible approach.

Introduction to Vocations is a guidance program for all students. It gives them the real opportunity to experience the sights, smells and sounds of the world of work.

A third phase program for career development is the Coupled Work Study experiences.

The closing of school in June brings a mixed emotional bag to many high school students. The first burst of joy and relief at completing a school year is mixed with concern for "Hey! What am I going to do with all this time?"

For many urban youth locked behind city walls, summer means idleness. It means a time in which seeds of anti-social activity spawn and grow. It means a time in which individual attitudes toward both school and work can develop a negative character. This, however, need not be a problem. There are positive programs to meet the needs of idle youth during the hot summer weeks. An important one is the Summer Coupled Work-Study program, another component in the fabric of career development.

Summer Coupled Work-Study programs provide opportunities for needy students, 15 to 20 years of age, to experience the satisfaction of a paid job and also participate in a meaningful in-school vocational program.

Generally, a student in Coupled Work Study will spend 5 hours on the job and 2 hours in a hands-on in-school vocational program. In this program student jobs must be provided by public agencies.

The in-school phase of the Coupled Work Study program includes basic skill offerings in a variety of areas including office practice, small engine repair, carpentry, metal work, building maintenance, auto tune-up and many others. A student may gain experience in several different areas. These experiences can help to spark interest in the student and give him the opportunity to explore his own abilities and aptitudes as an aid to planning his future school and career programs.

This is Coupled Work Study – a chance to make a contribution – a chance to grow and develop – a chance to say "I'm important!"

The Career Development Program package is tied together by the Career Resource Center team. It is this group which supports the total package. It supports participant teachers by developing curriculum and instructional materials. It builds a resource and communications bridge between the schools and students, on one hand, and the total community, on the other.

The Career Resource Center team includes the director of the district career development project and coordinators for job placement, multi-media, school – industry cooperation, and public relations. It assists by involving the total community in the career development approach. It assists in planning field trips and job fairs. It assists by training and upgrading teachers. It provides expertise to make the total program more real and meaningful.

The Career Resource Center team is the lubricant that makes all program segments work at optimum efficiency. It is the force that keeps the total program together. Its aim is to make the program the best possible for all the students and the community involved.

Carl L. Marburger, Commissioner of Education
Stephen Poliacik, Asst. Commissioner of Education (Acting)
Morton Margules, Assoc. State Dir. of Vocational Education
Harold Seltzer, Dir., Bureau of Occup. Research Development
*****
Special Paper Series edited by Edwin G. York, Coordinator
Occupational Research Development Resource Centers